DOCUMENT RESUME

ED 145 099 08 CE 012 327

AUTHOR Lindsay, Carl A.; And Others
TITLE 1975-76 Pennsylvania Adult Basic Education Assessment Project: An Examination of the APL Construct and Mezirow's Program Evaluation Model as a Basis for Program Improvement. Final Report.
INSTITUTION Pennsylvania State Univ., University Park.
SPONS AGENCY Office of Education (DHEW), Washington, D.C.; Pennsylvania State Dept. of Education, Harrisburg. Adult Basic Education Section.
PUB DATE Dec 76
CONTRACT 09-6902
NOTE 87p.

EDRS PRICE MF-$0.83 HC-$4.67 Plus Postage.
DESCRIPTORS *Adult Basic Education; *Basic Skills; Educational Assessment; *Educational Diagnosis; Educational Objectives; Educational Programs; Inservice Teacher Education; Performance Based Education; Performance Tests; *Program Effectiveness; Program Evaluation; *Program Improvement; *State Programs; State Surveys; Statewide Planning; Task Performance; Test Interpretation; Test Results
IDENTIFIERS *Adult Performance Level; Pennsylvania

ABSTRACT

A project was conducted in Pennsylvania to determine what changes might improve the effectiveness of the State's adult basic education (ABE) program. Northcutt's construct of functional competency adult performance level (APL) and Mezirow's program evaluation model provided the basis for the project's two components: APL assessment and program analysis. Data was collected through (1) surveys of staff and students from a sample of sixty ABE programs, (2) student performance on the APL, and (3) workshops attended by eighty-eight practitioners from local ABE programs. The APL assessment resulted in several findings including the following: APL levels discriminate effectively among student abilities; and there was general staff agreement that the APL construct could be used in establishing statewide criteria for different grade levels and that the APL test could serve as a diagnostic-placement tool. The program analysis findings included the following: A major problem in goal-setting is the discrepancy that often exists between program goals and those of individual students; the primary consideration for selecting ABE staff should be ability; and formal daily staff discussions are regarded as the most effective format for inservice sessions. (The report concludes with eighteen recommendations for improving program effectiveness or administrative efficiency of ABE programs at the Federal, State, and local levels.) (EM)

Documents acquired by ERIC include many informal unpublished materials not available from other sources. ERIC makes every effort to obtain the best copy available. Nevertheless, items of marginal reproducibility are often encountered and this affects the quality of the microfiche and hardcopy reproductions ERIC makes available via the ERIC Document Reproduction Service (EDRS). EDRS is not responsible for the quality of the original document. Reproductions supplied by EDRS are the best that can be made from the original.

ED145099

FINAL REPORT

1975-76 PENNSYLVANIA ADULT BASIC EDUCATION ASSESSMENT PROJECT:

AN EXAMINATION OF THE APL CONSTRUCT AND MEZIROW'S PROGRAM EVALUATION MODEL AS A BASIS FOR PROGRAM IMPROVEMENT

by

Carl A. Lindsay
Benjamin M. Nead
Helen Warren
Edmond L. Seguin
Harrison T. Southworth
J. Richard Zelonka
Frank Stover

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY

Planning Studies in Continuing Education
The Pennsylvania State University

December 1976

Prepared under Contract Number 09-6902

for the

Adult Basic Education Section
Department of Education
Harrisburg, Pennsylvania

OE 012 327

The project which is the subject of this report was supported by the U. S. Office of Education and the Pennsylvania Department of Education. However, the opinions expressed herein do not necessarily reflect the position or policy of the U. S. Office of Education or the Pennsylvania Department of Education, and no official endorsement should be inferred.

ABSTRACT

The primary goal of the 1975-76 Pennsylvania Adult Basic Education (ABE) Assessment Project, conducted between June 1975 and December 1976 by Planning Studies in Continuing Education, The Pennsylvania State University, was to determine what changes might improve the effectiveness of the Commonwealth's ABE program. Northcutt's construct of functional competency (APL) and Mezirow's program evaluation model provided the basis for the project's two components: APL Assessment and Program Analysis. Project data were collected via surveys on program operations and student performance on the APL, as well as two workshops for practitioners from local ABE programs. Surveys were administered to staff and students from a sample of 60 representative ABE programs and yielded a total return of 1,580 students (1,497 enrollees, 83 dropouts) and 277 staff. Workshops were attended by a total of 88 administrators, supervisors, teachers, and counselors.

APL ASSESSMENT

Student performance on test items designed to assess functional competency indicated that APL levels discriminate effectively among student abilities. There was general agreement among both staff members surveyed and workshop participants that the APL construct could be used in establishing statewide criteria for different grade levels and that the APL Test could serve as an effective diagnostic-placement tool. On the basis of an assessment of student interest, as well as of the estimates made by ABE teachers of the relative importance of various APL skill-knowledge areas, there was general consensus that skills associated with occupational knowledge should have highest priority in the development of ABE core curricula. Skills related to consumer economics were considered of about equal importance followed by skills involved in matters of health, community resources, and government and law.

PROGRAM ANALYSIS

There appears to be general agreement that while many factors must be considered in establishing ABE goals, a major problem in goal-setting is the discrepancy that often exists between program goals and those of individual students. Since many students attend ABE classes primarily as a means of preparing for a high school equivalency diploma, doubts were expressed whether competency-based instruction could provide such preparation without the concommitant establishment of an alternative diploma based on the APL model. It was also felt that counselors should play a larger role in planning and modifying ABE programs.

In the selection of ABE staff, the primary consideration, it was agreed, should be ability rather than specific certification requirements. Empathy with students is essential, together with flexibility and enthusiasm for the job. It was generally felt that the establishment of an ABE teacher personality prototype would be a useful aid in the hiring of instructors.

Of the variety of possible formats that can be used in the structuring of in-service sessions, informal, daily staff discussion is regarded as the most effective. Instructional methods and student diagnosis were rated as important topics for in-service sessions. The formation of a statewide pool of resource experts and consultants was suggested as an effective means of improving local and regional workshops.

Collaboration with other agencies can significantly increase the visibility and the prestige of ABE programs in the community, and both survey and workshop participants put a heavy emphasis on the need to improve communications between ABE programs and collaborative organizations. The development of specific criteria for the selection of referrals was urged, and a process of continual contact, with feedback, was considered vital.

Although word-of-mouth appears to be an effective method of recruiting students, it was felt that the recruitment process could be improved by more extensive use of local media, as well as by closer cooperation with referral agencies. Retention of students in the program, once they are enrolled, however, appears to be a more difficult problem to handle.

A comparison of students who dropped out of programs with those who remained revealed very few differences in terms of student characteristics. Intrinsic motivation may be a significant factor in persisting in ABE, and the amount of individual attention the student receives may play a part. However, the reasons most frequently cited by students for withdrawing from the program involved personal health and home responsibilities.

Although a wide variety of instructional and assessment practices are found among ABE programs, the level of student satisfaction appears to be high. Both the survey results and the workshop discussion indicated that ABE staff are aware of the need to match assessment and instructional techniques to student capabilities and are making every effort to do so.

PROJECT RECOMMENDATIONS

A total of 18 recommendations, some aimed at improved program effectiveness and others at administrative efficiency, were directed to the three levels of ABE program administration: federal, state, local. Among these recommendations are the following:

1. That the FEDERAL administration revise or provide an alternative definition of the target population in terms of functional competency rather than grade level completion. State and local program definition, eligibility criteria, data collection and reporting requirements would, of necessity, also have to be reviewed.
2. That the STATE adopt and encourage competency-based ABE program goals which could be implemented on an optional basis by local ABE programs.
3. That students who complete a competency-based ABE program should be awarded an alternative certification, based on demonstrated competency.
4. That the FEDERAL government revise their guideline development procedures to insure timely and clear reporting requirements.
5. That the state plan should be widely disseminated by the STATE in a manner that will allow for feedback from the administrators in the field.

6. That the STATE support the revising of Form 3081 (student intake), combining it with an individual student data form which would meet federal, state and local program requirements.

7. That the STATE ABE Section of the Department of Education should be authorized to increase its current small professional staff to provide better interprogram coordination as well as improved implementation of the state plan.

8. That support for Project ADVANCE, which has demonstrated effectiveness in information dissemination, should be continued by the STATE.

9. That FEDERAL and STATE levels examine the validity and utility of currently used measures of ABE program impact and consider the development and validation of additional impact indicators such as social, civic, and community roles assumed by ABE students.

10. That the STATE should direct ABE program evaluative efforts toward the identification and in-depth assessment of exemplary programs, aimed toward collecting and disseminating information on effective program operations and practices to members of the ABE program community.

ACKNOWLEDGEMENTS

It is a pleasure to acknowledge the contributions of the many individuals whose cooperation and talents aided materially in the successful completion of this study.

We are especially indebted to Ethel Matthews, Clair Troy, Jack Sittman, and Gordon Jones of the Division of Adult Education, Pennsylvania Department of Education, whose active counsel and support throughout the project not only facilitated our work but made it pleasurable as well.

Special thanks must also be expressed to the many staff members of Pennsylvania ABE programs--administrators, supervisors, teachers, and counselors--whose willing and patient assistance in carrying out the survey and whose energetic participation in the workshops contributed immeasurably to the project's success.

Of the many others who aided actively in various aspects of the planning, development, and execution of the study, special mention must be made of the following: Thomas Knapp, University of Rochester; David M. Shoemaker, U.S. Office of Education; John L. Hayman, Alabama Department of Education; Clara Ruth Hayman, the University of Alabama; James Parker, U.S. Office of Education; Jack Mezirow, Columbia University; Norvell Northcutt and Nina Selz, APL Project, University of Texas; Joseph Blake and David Landis, Project ADVANCE, Millersville State College; Jessie Ulin, National Advisory Council on Continuing Education and Extension; Jackson Barnette, Director of CREWS, The Pennsylvania State University, and his staff; and Lou Danielson, Dave Weiss, Kathryn Sproat, Helen Kenworthy, Pamela Seiler and Edna Heald of the Planning Studies staff.

CONTENTS

	Page
ABSTRACT	ii
ACKNOWLEDGEMENTS	vi
LIST OF TABLES	x
LIST OF FIGURES	xi
INTRODUCTION	1
Background and Philosophical Base	1
Scope, Rationale, and Overall Objective	2
Literature Review and Assessment Approach	4
OVERVIEW OF PROJECT COMPONENTS AND METHODS	8
Project Components	8
Program Analysis	8
APL Assessment	9
Project Components and Data Collection Methods	9
Major Data Collection Activities	11
Survey Development	11
Program Sample Plan	13
Data Collection Training	14
Survey Data Collection	14
Data Analyses and Workshop Planning	15
Workshop Data Collection/Dissemination	15
APL ASSESSMENT	17
Functional Competency and the APL Construct	17
Development of the Testing Plan	17

CONTENTS (continued)

	Page
Student Performance on APL Test Items	20
Generalized Behavior Statements of APL Competencies	23
Student and Teacher Responses to Behavior Statements	25
The APL Acceptability Workshop	29
Uses of APL	29
Ranking of APL Cells on the Basis of Student Performance	30
Ranking of APL Cells on the Basis of Behavior Statement Comments	30
PROGRAM ANALYSIS	35
Goal-Setting	36
Student Goals	36
Factors Influencing Goal-Setting	38
Improving the Goal-Setting Process	39
Problems in Goal-Setting	39
Staffing	40
Staff Characteristics	40
Staff Selection	42
In-Service Education	43
Participation and Topics	44
Formats	45
Improvement of In-Service Training	48
Collaboration	48

CONTENTS (continued)

	Page
Recruitment	51
Retention/Dropouts	52
Characteristics	53
APL Performance	54
Reasons for Separation	55
Instruction	56
Instructional Activities	56
Assessment Procedures	59
Student Feedback	62
PROJECT RECOMMENDATIONS	65
Program Goals	65
Program Effectiveness	68
Continued Assessment	69
REFERENCES	71

LIST OF TABLES

Table		Page
1	Distribution of ABE Sample by Program Site and Program Level	14
2	Equivalence of the Four APL Test Forms	20
3	APL Competency Levels in Specific Knowledge and Skill Areas for Total ABE Student Sample	22
4	Mean Priority Rankings for Curriculum Development of APL Skills as Applied to Knowledge Areas, by ABE Grade Level	31
5	Average Cell Rankings for All Grade Levels Based on Observation of Student Performance with Resultant Priority Rankings for Each Knowledge and Skill Area	32
6	Sums of Ranking Values for Each Skill-Knowledge Cell for All Grade Levels Based on Teacher and Student Reactions to Competency Statements, with Resultant Priority Rankings	33
7	Comparative Rankings of APL Knowledge Areas for Each ABE Grade Level by Student Interest, Teachers' Estimates of Importance, and Workshop Participants' Priorities for Curriculum Development	34

LIST OF FIGURES

FIGURE		Page
1	Relationship between Project Components and Data Collection Methods	10
2	Overview of Project Plan and Chronology of Activities	12
3	The APL Knowledge-Skills Matrix	18
4	Estimated Overall APL Competency Levels for U.S. Adult and Pennsylvania ABE Student Samples	21
5	Responses of 1-4 Level Students and Teachers to Generalized APL Behavior Statements	26
6	Responses of 5-8 Level Students and Teachers to Generalized APL Behavior Statements	27
7	Responses of 9-12 Level Students and Teachers to Generalized APL Behavior Statements	28
8	Median Ranking of Counselors' Perceptions of the Importance of Student Goals	37
9	Factors Influencing Goals and Priorities of ABE Programs, as Perceived by Supervisors	38
10	Importance of Staff Characteristics as Judged by Supervisors	41
11	Staff Participation in In-Service Training	44
12	Topics Covered in In-Service Training, as Reported by Teachers and Supervisors	46
13	Formats Used for In-Service Training	45
14	Relative Emphasis and Value to Teachers of In-Service Training Methods	47
15	Supervisors' Ranking of the Advantages of Collaboration	49
16	Supervisors' Ranking of the Disadvantages of Collaboration	50

LIST OF FIGURES (continued)

FIGURE		Page
17	Students' Evaluation of Learning Methods.....	57
18	Teachers' Estimate of the Use Made of Programmed Materials.....	58
19	Counselors' Evaluation of Standardized Testing.....	60
20	Counselors' Ranking of Types of Student-Initiated Contacts.....	61
21	Students' Reasons for Attending ABE Classes.....	62
22	Students' Estimates of Learning Gains.....	63
23	Students' Interest in Additional Education.....	64

INTRODUCTION

> It is the purpose of this title to expand educational opportunity and encourage the establishment of programs of adult public education that will enable all adults to continue their education to at least the level of completion of secondary school and make available the means to secure training that will enable them to become more employable, productive, and responsible citizens. (Sec. 302, The Adult Education Act, PL 91-320).

BACKGROUND AND PHILOSOPHICAL BASE

Between 1870 and 1970 the percentage of persons in the United States graduating from high school increased from 2% to 78% (American Education, 1971). Yet in spite of this impressive increase, there still are substantial numbers of American adults who have not completed high school. In its 1974 report to Congress, the National Advisory Council on Adult Education (NACAE) estimates that there are some 54 million Americans of working age who have not completed high school and are not enrolled in school (NACAE Annual Report, 1974).

In Pennsylvania the conditions are much the same as they are nationally. During the 1970-71 school year there were 3,561,337 adults 16 years of age and older with less than a high school education who were not enrolled in school. This figure constitutes 30% of the <u>total</u> population of Pennsylvania. Moreover, of the 6,689,938 adults in Pennsylvania over 25 years of age, 3,329,384 or 50% have less than a high school education, while 94,285 adults have had no schooling whatsoever.

In 1966, Congress, prompted by statistics such as these and aware that educational achievement is significantly related to such social conditions as unemployment, poverty, and welfare, passed the Adult Education Act (Public Law 89-750). Since the beginning of the national thrust into the area of adult education in 1966, six million persons have enrolled in thousands of local adult education programs administered by the states. Eight successive laws, which form the basis for the federal commitment to adult education, have enabled this rapid expansion of adult education programs in the states; but at the same time the broad language of these

laws has hindered the development of a coherent definition of what the Adult Education Acts are intended to accomplish.

As the NACAE put the question, "Do the policy statements and guidelines emanating from the federal level emphasize the teaching of literacy as a prerequisite for job training, or do they relate to the more comprehensive goal of creating a broad base of general education to undergird total life responsibility?" (NACAE Annual Report, 1974, p. 83).

The Adult Basic Education (ABE) program of the Commonwealth of Pennsylvania necessarily reflects some of the ambiguity of the national philosophy in which it is grounded. Hence, no simple, direct, and quantitative report of activities can adequately express the degree of effectiveness or level of goal attainment perceived by the program's different constituencies. As a direct consequence of such ambiguity, one of the major recommendations of this report is the encouragement of more explicit identification and specification of program goals and activities.

SCOPE, RATIONALE, AND OVERALL OBJECTIVE

In addition to the philosophical base from which ABE programs operate, there is also a program activity context which has four main levels: federal, state, local and classroom. Each requires different evaluation procedures based on the goals of the four levels described below:

(1) Federal: The U.S. Office of Education Division with responsibility for adult basic and adult secondary education programs.

(2) State: The state agency associated with adult education.

(3) Local: The entire local community adult education program sponsored by a school system or other agency.

(4) Classroom: The group of adult learners who typically study under the supervision of a teacher in a classroom or individualized setting.

This study focused on adult basic education activities or programs occurring in levels 3 and 4, local and classroom. It was further restricted to activities authorized by Section 306 of PL 93-380, that is, instructional

activities and the contexts in which they occur. An examination of special demonstration projects and teacher training, as authorized by Section 309 of the Adult Education Act, was beyond the scope of the project.

The basis for this study was Pennsylvania's State Plan for Adult Basic Education for 1975-76, and its primary goal, "to provide an opportunity for all undereducated adults, 16 years of age and over, in Pennsylvania, and not currently enrolled in a formal plan of education, to pursue a course of instruction which will meet the needs of adults for a basic education through the high school level." The intent in designing the study was to be responsive to the Federal Guidelines for evaluating adult education programs: "The annual program plan should contain a statement which sets forth the policies, procedures, and practices of the State education agency for assuring that the performance of adult education programs assisted under the Act are constantly monitored to assure adequate progress is being made towards achieving the goals of the grant" (Federal Register, State Adult Education Programs, p. 22233). In consultation with the Director and staff of the Department of Education's ABE Section, an overall project objective was established: to help improve the administrative and program effectiveness of the Commonwealth's Adult Basic Education Program by providing the contractor (Adult Basic Education Section of the Department of Education) with information designed to assess program operations, student performance, and program management or monitoring. To carry out this broad objective, an 18-month effort was initiated in June 1975, which consisted of a detailed planning phase and two major research or implementation phases. This report is a summary of the activities carried out by the Penn State research team and contains a description of the assessment approach, methods used, project results and recommendations developed.

A review of earlier studies of ABE will define some of the issues in ABE assessment and provide background for the approach that was selected for the Pennsylvania study.

LITERATURE REVIEW AND ASSESSMENT APPROACH

The first nationwide examination of Adult Basic Education programs was initiated in 1971 (Kent, 1973). In addition to examining the relationship between students' ABE experience and changes in test scores, basic skills, work experience and income, the study considered the impacts of innovative demonstration and teacher training (309 projects), and assessed the success with which groups having the greatest need were identified and recruited in the several states.

Although the broad goal of the Adult Education Act (Sec. 302, PL 91-302) is to improve students' economic potential, the findings of the study indicated that both instructional goals and students' motivation are more education- than job-oriented. However, program participation appears to lead to improvements in both areas. The study reported that the number of ABE students in the labor force increased from 50% to 70% in 18 months, while their mean income increased 21% during this period. The ABE student sample showed an average gain after 4 months of one-half year in reading level and 0.3 year in math. However, none of the effects found were attributable to specific program characteristics or classroom techniques, and similar academic gains were also shown by students enrolled in MDTA programs.

State program directors indicated that innovative techniques were widely used in their programs, but first-hand investigations of local programs failed to confirm these assertions. Moreover, "little evidence could be found that ABE programs are established, or that students are recruited in such a way as to deliberately seek out unusually hard-to-reach adults" (Kent, 1973, p. 1-9).

Although ABE programs may be effective in improving both educational and economic status, the number of students served has been very small (NACAE, 1974). In 1973 the target population was 54 1/2 million, less than half of whom were employed and over 3 million of whom were on public assistance. Yet the nationwide ABE program reached only 1.5% of these adults during that year. Moreover, the programs of the various states varied widely and unexplainably in penetration of the target population, in instructional hours, in grade level emphasized, in proportion of men and women enrolled, and in per-student expenditure.

The NACAE Report makes a number of recommendations. Better information should be obtained on the needs of minorities and migrants, on the reasons for significantly larger numbers of female than male enrollments, on program characteristics that facilitate retention of students, and on program costs. Forward-funding is urged to prevent the delays that often lead to program delay or cancellation. Programs should assign highest priority to younger age groups, whose disadvantage is greatest relative to their peers, to welfare recipients, and to inmates of correctional institutions.

Mezirow and his colleagues (Mezirow et al, 1974; Knox et al, 1974) report the results of a series of studies of ABE initiated in 1969, using the method of "synchronic induction." Field studies, using interviews, questionnaires, and direct observation, were conducted simultaneously at several sites, providing mutual feedback and suggesting hypotheses for validation in multiple settings. The data were classified by six program component areas: recruitment, staffing, goal-setting, collaboration, instruction, and in-service education. These areas were analyzed in terms of discrepancies between (1) the expectations of those participating in the program and current program practice, and (2) the expectations of those involved in policy formation and those concerned with program implementation.

Among their findings, the Mezirow group notes that emphasis on non-traditional subjects in the class is correlated with better attendance and lower drop-out rates. Program directors disagree on curricular issues and also on the extent to which harder-to-reach adults should be recruited in preference to more willing students; these views are related both to the director's age and whether he is employed full- or part-time in ABE.

From a simple conception of "literacy," as an economic remedy, the goals of the Adult Basic Education Program have grown to include a broad range of life skills or competencies, and the notion of "functional competency" has evolved as a basis for student and program assessment. The results of a national survey using the Adult Performance Level (APL) prototype test of functional competency (Northcutt, 1975) indicate that the number of adults unable to function successfully in contemporary society in terms of these competencies is much greater than had been indicated by previous criteria of simple literacy or years of schooling.

In a comparative evaluation of several tests of adult functional competency, Nafziger et al (1975) rate the APL prototype test "fair" on Measurement Validity, and "good" on Examinee Appropriateness, but "poor" on Technical Excellence and Administrative Usability. Bormuth (1974) has stated that the Northcutt study is superior to previous studies in defining the behaviors that characterize functional literacy, however, and these ratings indicate primarily a need for further refinement of the instrument rather than an appraisal of the concept. This deficiency seems to have been corrected with the publication of two standardized versions (High School and Adult) of the APL by The American College Testing Program (ACT, 1976). In addition to the APL Test, curricular materials suitable for ABE classes are being developed.

According to Nafziger, though the groundswell of interest in APL has resulted in development of instructional materials, more research on other components is also needed. Mocker and Spear (1976), in an investigation of differences in teacher competencies between APL and traditional ABE programs find that APL teachers recognize 16 teacher skills in addition to those listed by ABE teachers. Moreover, APL teachers place more emphasis on an active role by the student in the planning and learning process, and are less concerned with individualization, classroom management, teacher behavior and methods. However, teachers of both types give highest priority to effective communications with students, to the learning climate, and to understanding the importance of differences between children and adults.

It is clear from a brief review of the literature that the "success" of ABE programs is difficult to conceptualize and appraise. Program practices vary widely, and very few outcomes have been found to be directly attributable to program characteristics. Moreover, the goals stated in the enabling legislation may often be at variance with the goals of students, teachers, or program directors.

Despite these problems, which, it should be pointed out, are not unique to the Adult Education Act, the national ABE program continues to be funded and attempts to evaluate its effectiveness at the local, state and national levels also continue. The present study, with its broad goal of contributing to the overall effectiveness of the Commonwealth's ABE program, is, of course, part of the effort. In developing an approach to the task of

assessing Pennsylvania's ABE programs, we have had the benefit of previous research. In particular Mezirow's conceptual model of the structure of ABE programs seemed to provide a sound basis for organizing our assessment effort, and Northcutt's conceptual model of functional competency (APL) seemed to be directly relevant to the goals of the ABE program. Accordingly, these two models were selected by the Penn State research staff to organize and guide the present assessment effort.

To provide background information for the 1975-76 ABE Assessment Project, the Penn State research team conducted an administrative survey of the 1974-75 program. A report on this survey was published in September 1975 (Southworth, et al). Readers interested in the scope and organization of the ABE program in Pennsylvania may wish to consult this publication as well as the most recent ABE program survey, published in December 1976 (Sproat, et al).

OVERVIEW OF PROJECT COMPONENTS AND METHODS

This section sets forth a broad overview of the project's two components, the methods employed and data collected for the 1975-76 ABE Assessment Project. The overview is neither technically oriented[1] nor detailed. It is written with the primary audience for this report in mind, adult basic education practitioners. Its intent is twofold: (1) to provide an understanding of how the study was planned and conducted, and (2) to serve as an introduction to the more detailed discussions of the study methods which are part of subsequent sections.

PROJECT COMPONENTS

The overall 1975-76 ABE Assessment Project consisted of two basic parts: Program Analysis and APL Assessment. Mezirow's "Perspectives Discrepancy Assessment" model (Mezirow et al, 1975; Knox et al, 1974) was adapted to provide the basis for the Program Analysis Component, while Northcutt's construct of functional competency (Northcutt, 1975) provided the framework for the APL Assessment Component.

Program Analysis

As originally formulated, the Perspectives Discrepancy Assessment model identified six major areas of decision making in ABE programs: recruitment, staffing, instruction, staff development, collaboration, and goal-setting. The strategy associated with the model calls for analyzing discrepancies, as perceived by ABE program staff, between current and intended practice in the six areas of decision making. Revealed discrepancies between expectations of administrators, teachers, and others signal major or potential problems which are amenable to corrective action through policy and program revision and staff development efforts. Data for the model are collected through the administration of detailed surveys, based on the six decision making areas, to ABE program staff and students.

---

[1] Details of sample plan, instruments developed, workshops conducted, additional data analyses, etc. will be furnished upon request by Planning Studies.

Although its rationale is appealing, the adoption, in toto, of the Perspectives Discrepancy Assessment model and its data collection instruments was judged to be too lengthy for the Pennsylvania ABE Assessment Project. On the other hand, since the model's six decision-making areas seemed to effectively conceptualize the important elements of ABE programs, and since the survey instruments for the six areas had been developed and tested, it was decided to develop a reduced-scale version of the model for the current project's Program Analysis Component. Essentially, our modification of the model involved the deletion of questions dealing with intended practice, as well as other questions judged to be not relevant to the project's objectives.

APL Assessment

Based on a review of pre-publication reports from the Texas APL project and the Federal Register Guidelines concerning APL implementation, it was decided to incorporate an examination of the APL construct of functional competency as part of the Pennsylvania ABE Assessment Project. When this decision was made (April, 1975) nationwide interest in functional competency in general, and the APL in particular, was beginning, and it seemed an appropriate time to examine the applicability of competency-based education for adult basic education programs. Since APL was, and still is, the best articulated construct of functional competency, having both a set of 67 objectives which define competency and a prototype test for competency assessment, permission was secured from the Director of the APL project to use the APL objectives and test items for this project.

PROJECT COMPONENTS AND DATA COLLECTION METHODS

Data on the project's two components, Program Analysis and APL Assessment, were collected via two basic methods: surveys and workshops. Essentially, there were two data collection phases of the project, corresponding to the method employed. Phase 1 data were collected by surveys to provide input for the workshops which were conducted during the second phase.

The relationship between the methods of data collection and the project's components is illustrated in Figure 1. It shows that each component employed both a survey phase to collect project information,

PROJECT COMPONENT	METHOD	
	Surveys	Workshops
Program Analysis	A. Staff (Mezirow Model) 1. Administrator, Program Operations 2. Supervisor, Program Operations 3. Counselor, Program Operations 4. Teacher, Part A, Program Operations B. Student 5. Part A, Attitudes, Satisfaction	Program Operations
APL Assessment	A. Staff (APL Construct) 4. Teacher, Part B, APL Evaluation B. Student (APL Construct) 5. Part B, APL Performance and Evaluation	APL Acceptability

Figure 1. Relationship between Project Components and Data Collection Methods

followed by a workshop phase. In addition, Figure 1 lists the surveys associated with each component, and the component's abbreviated workshop title.

From this broad perspective on how the project data were collected, we turn next to a more detailed examination of the major planning, survey development and data collection activities.

MAJOR DATA COLLECTION ACTIVITIES

Figure 2, Overview of Project Plan and Chronology of Activities, is intended to illustrate the major activities of the project and the sequence in which they were carried out. The organization of this section parallels the order of activities in Figure 2 and the reader may wish to examine it before reading further.

Three major activities preceded the actual project data collection efforts: survey development, the planning and selection of a sample of ABE programs, and the training of data collection agents.

Survey Development

A total of five survey instruments (four staff and one student) were developed to collect data on the Program Analysis and APL Assessment Components. Items dealing with program operations, planning, staffing, etc. were adopted from Mezirow's evaluation model instrumentation, and organized into four surveys, one for each of the major categories of local ABE program staff: Administrators, Supervisors, Counselors, and Teachers. The Student Survey, based primarily on the APL construct, consisted of two major parts. Part A contained a subset of the items from the APL prototype test of functional competency and a set of items asking the students to rate their knowledge of and need for training in the APL competencies. Part B was a set of items asking students to express their attitudes toward and satisfaction with their ABE program experiences. The Teacher Survey also contained two parts. Part A dealt with the APL Assessment Component and contained a set of items which paralleled the APL evaluation items in the Student Survey. Part B dealt with items on the various ABE program areas identified by Mezirow, particularly instruction.

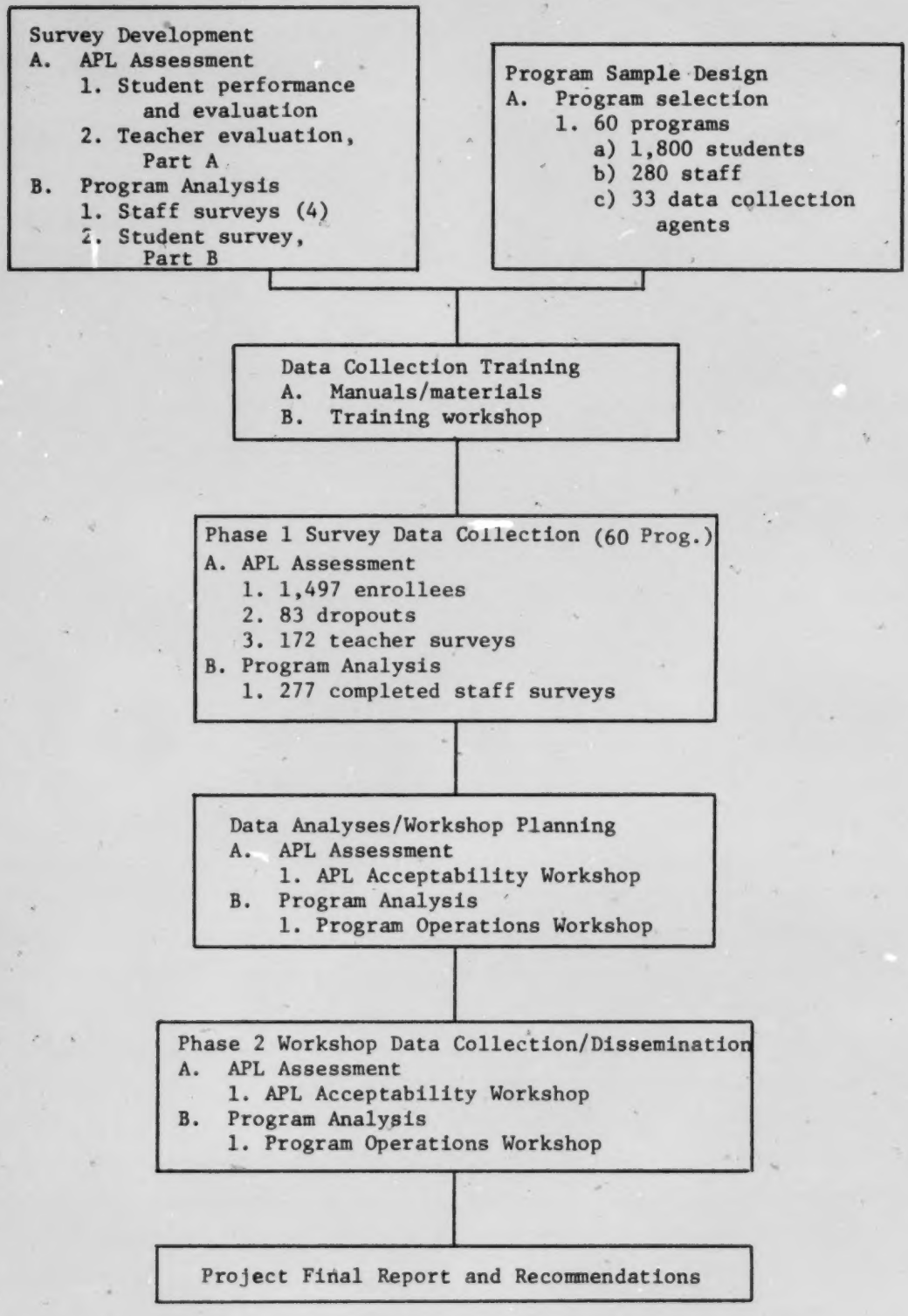


Figure 2. Overview of Project Plan and Chronology of Activities

Program Sample Design

To capture all of the planning, constraints, compromises, and problems involved in obtaining a sample of ABE programs, staff, and students for this project would require an extensive discussion which would tax the reader's interest and patience. Suffice it to say that we viewed the sample planning, design, and selection effort as the single most important project activity. Our goal was to obtain a sample of programs, staff, and students which would be representative of an educational program known to be spontaneous, dynamic, and characterized by variability in facilities, resources, and purposes and which, at the same time, is primarily a part-time enterprise on the part of both students and staff. To attempt to deal with these program-related constraints, a two-fold classification of programs, instructional level and program site, was made, resulting in a 3 x 3 matrix (this matrix is shown in Table 1). From this classification of programs, a two-stage sample plan was devised: programs were to be proportionately sampled from each of the nine cells of the matrix, and students and staff were to be further sampled from the programs selected. Based primarily on cost and sampling considerations, a sample plan consisting of 60 programs, each with a maximum of 30 and minimum of 20 students and a range of four to six staff, was established. Two further constraints dictated the actual programs sampled: (1) they had to be in operation by December 1, 1975 and run through February 1, 1976 (the survey data collection period), and (2) the number of administrators responsible for the programs selected was to be minimized to reduce data collection costs and logistical problems. The latter is a constraint in an extensive data collection effort and was particularly critical in the present study since it was decided that the survey data activity was to be conducted by paid data collection agents (local program counselors) who were currently working for the programs selected. As shown in Figure 2, the sample design arrived at called for 60 ABE programs, 1800 students (1,680 enrollees, 120 dropouts), 280 staff and 33 data collection agents. These agents carried out the second stage of the sample design, staff and student selection, according to detailed instructions.

Data Collection Training

Manuals and other associated training materials were prepared, including tape recorded instructions for administering the performance section of the APL prototype test to ABE students. All data collection agents attended an intensive one-day workshop, conducted by the research team, in Harrisburg during the latter part of November 1975. In addition to simulation training, they were instructed on how to select samples of staff and students from programs under their jurisdiction and asked to complete the administration of the survey instruments by February 1, 1976.

Survey Data Collection

It is worthwhile noting that completed staff and student surveys were received from all 60 of the programs originally sampled. These 60 programs yielded a total of 1,580 students (1,497 enrollees, 83 dropouts) and 277 staff. A distribution of the total student sample by program site and level is shown in Table 1. A comparison of this distribution, as well as others,

Table 1

Distribution of ABE Student Sample by Program Site and Program Level

Program Site	Program Level						Totals	
	1-4		5-8		9-12			
	N	%	N	%	N	%	N	%
Local Schools	132	8	363	23	229	14	724	46
Learning Centers	66	4	139	9	96	6	301	19
Institutions	236	15	213	14	106	7	555	35
Totals	434	28	715	45	431	27	1,580	100

e.g., sex, age, race, etc., with the student population data for 1975-76 indicates that the sample is a representative one. In spite of our confidence in the student sample, it should be pointed out that there really is no definitive manner to define the population of ABE students in Pennsylvania, or any other state for that matter. At best, researchers can take a "snapshot" of the students in the program at a given time, and that is how the ABE student population, and hence the obtained sample, can be best characterized.

Data Analyses and Workshop Planning

This interim activity, occurring between the Phase 1 and Phase 2 data collection efforts, was concerned mainly with analyzing and summarizing the Program Analysis and APL Assessment data and planning for the two Phase 2 workshops. Each of the workshops had, in addition to certain objectives, a dual purpose: information dissemination and data collection. The plan was to contribute to the in-service training of the workshop participants by informing them of data collected on the project's two components, Program Analysis and APL Assessment; and, at the same time, to have them furnish additional project information by reacting, in a structured setting, to the data presented. Accordingly, selected data summaries and manuals were prepared for each of the two workshops, and the objectives and structures of the workshops were developed.

Workshop Data Collection/Dissemination

The first workshop, formally titled, "APL/ABE Assessment Project Dissemination and Participant Reaction Workshop," was held in Harrisburg on May 21, 22, 1976. It was attended by 33 local ABE program staff, selected from the 60 programs that formed the sample for the assessment project. It was staffed by members of the project research team as well as resource persons from the Texas APL Project, the U.S. Office of Education, and the ABE Section of the Pennsylvania Department of Education. Its general objective was to examine the applicability of the APL construct of functional competency for defining and assessing the functional competency of ABE students. Three specific objectives were also established:

(1) APL awareness: to review the APL construct of functional competency and recent APL-related research and development activities.

(2) APL applicability: to evaluate the applicability of APL objectives for a "core" set of ABE instructional programs.

(3) ABE/APL assessment project dissemination: to disseminate the results of (a) ABE student performance on the APL, (b) ABE student evaluations of APL objectives, and (c) ABE teacher evaluations of APL objectives.

The second workshop, formally titled, "ABE Program Operations Workshop," was held at University Park on June 16-18, 1976. It was attended by 55 local ABE program staff, selected to be representative of the mix of ABE programs in Pennsylvania. It was also staffed by members of the project research team and two consultants on group process techniques and methods. The general objective of the workshop was to develop feasible recommendations for improving the overall effectiveness and administration of ABE programs and to promote awareness of the APL construct of functional competency.

APL ASSESSMENT

FUNCTIONAL COMPETENCY AND THE APL CONSTRUCT

Since one important aspect of the assessment project was a consideration of the potential use in Pennsylvania ABE programs of the concept of functional competency as a basis for the development of core curricula and the measurement of student achievement, and since the general philosophy and the materials developed by the Adult Performance Level Project were available for studying the application of competency-based techniques to ABE programs, the APL construct was used as a basis for this aspect of the ABE assessment project.

According to the APL definition, functional competency consists of the application of a set of basic skills (reading, writing, computation, and problem-solving) to a set of general knowledge areas (occupational knowledge, consumer economics, health, community resources, and government and law), and is directly related to success in adult life, as determined by income, educational achievement, and occupational prestige. The APL project specified the requirements for functional competency in each knowledge area (a total of 67 objectives), a prototype instrument for assessing these requirements, and established and defined three measurable levels of overall competency: Level I -- adults who function with difficulty; Level II -- adults who are marginally functional; and Level III -- proficient adults.

DEVELOPMENT OF THE TESTING PLAN

The prototype APL test instrument served as a basis for assessing the performance--in terms of functional competency--of Pennsylvania ABE students. The test consists of 42 items and provides for a total of 67 scorable responses. Individual items are keyed to the cells of the APL Knowledge and Skill Matrix (Figure 3) and vary in difficulty, item scores having ranged in the national sample from 82% passing to 23%.

For several reasons, it was decided that a shortened form of the prototype APL test should be used. Results of the national survey had indicated that most adults with less than an eighth-grade education had

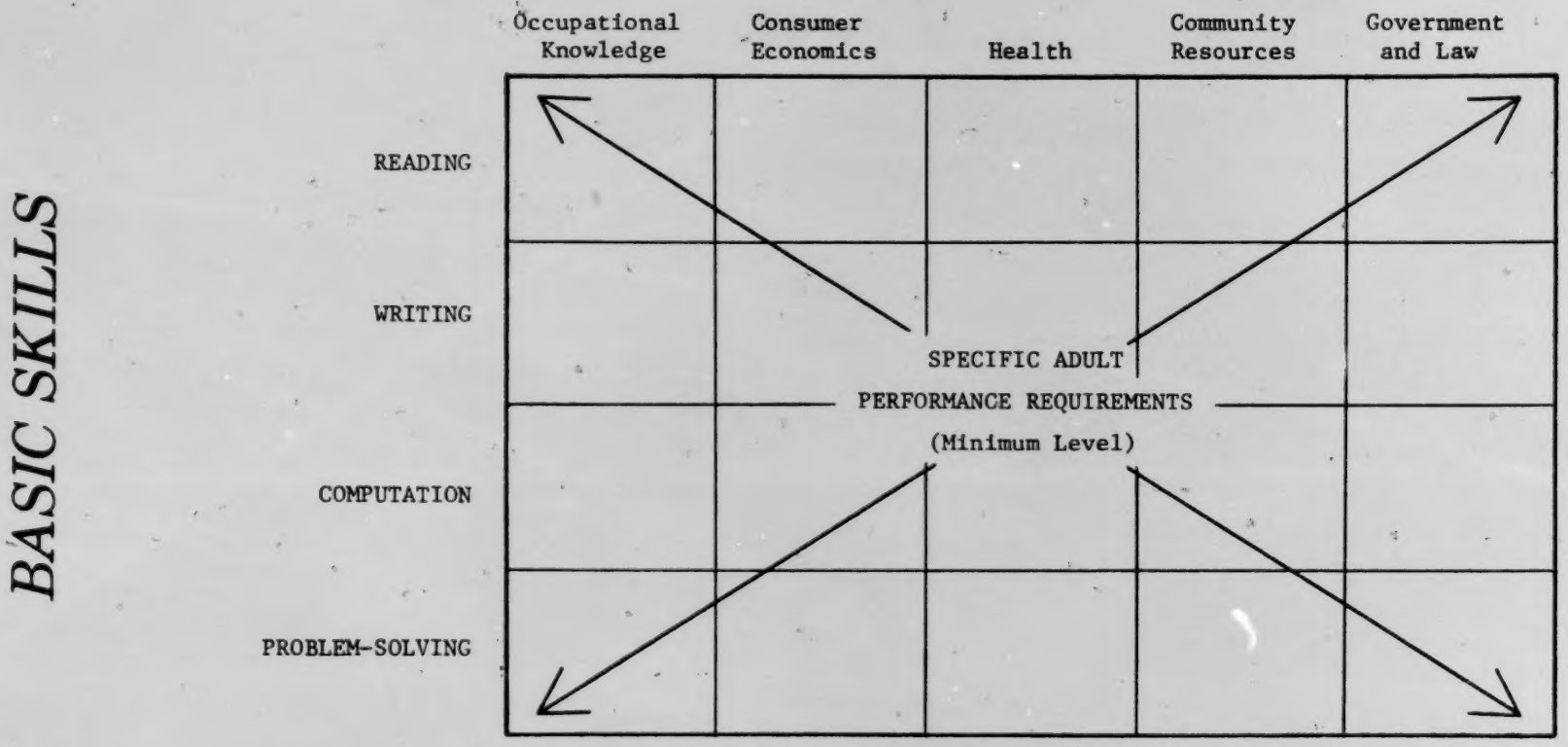


Figure 3. The APL Knowledge-Skills Matrix

considerable difficulty with APL items, and it seemed evident that the complete test would be overwhelming to many ABE students. Moreover, it was estimated that administration of the full instrument would require at least two hours, creating an undue imposition on both ABE staff and students--particularly since other useful information was to be obtained from students at the same time.

Thus in order to limit administration time to about one hour, as well as to gain the economic advantage of testing only a part of the entire population of Pennsylvania ABE students, the decision was made to use the simultaneous person-item sampling technique known as Multiple Matrix Sampling (Shoemaker, 1973). Procedures are available in this technique for estimating population means, standard deviations, and other distributional parameters.

Four parallel test forms were developed, each comprising a representative sample of APL test items. Although the distribution of items among subtests depended upon a consideration of length and difficulty as well as content, the four test forms were of approximately uniform difficulty--a fact substantiated by field testing, which resulted in administration time of about one hour for each form. Table 2 summarizes the equivalence of the four subtests. Only Forms A and B did not contain items representing each marginal APL area.

Thus, there were four forms of the ABE student survey, each consisting of two parts: (1) APL subtest (A, B, C, D) and (2) program attitude and APL rating items. Student survey administration was completed in February 1976 and yielded a sample of 1,580 completed APL subtests from the 60 target ABE programs.

Table 2

Equivalence of the Four APL Test Forms

Parameter	Test Form			
	A	B	C	D
Test Length				
Number of Items	10	10	11	11
Number of Responses	20	16	15	16
Average Percent Passing (Based on national sample)	58	62	63	63
Number of Knowledge and Skill Areas Represented (9 possible)	8	8	9	9

STUDENT PERFORMANCE ON APL TEST ITEMS

The first analyses of test responses were aimed at ascertaining the proportions of Pennsylvania ABE students falling into each of the three APL categories of functional competency. As indicated above, APL I's are those adults who function with difficulty; APL II's are adults who function at a marginal level; and APL III's are adults who function proficiently. In the national sample (representative of all U.S. adults) 20 % of the total had been estimated to fall into APL I, 34 % into APL II, and 46% in APL III.

This information, together with the performances of the Pennsylvania ABE students sampled, is presented graphically in Figure 4. As might be expected, over half of the state's ABE students fall in APL Level I (adults who function with difficulty), including roughly a quarter of the 9-12 group, half of the 5-8 group, and more than four-fifths of those taking ABE instruction at the 1-4 level. The correspondence between competency levels and grade suggests the possibility of a substantial correlation between the APL instrument and current ABE assessment devices.

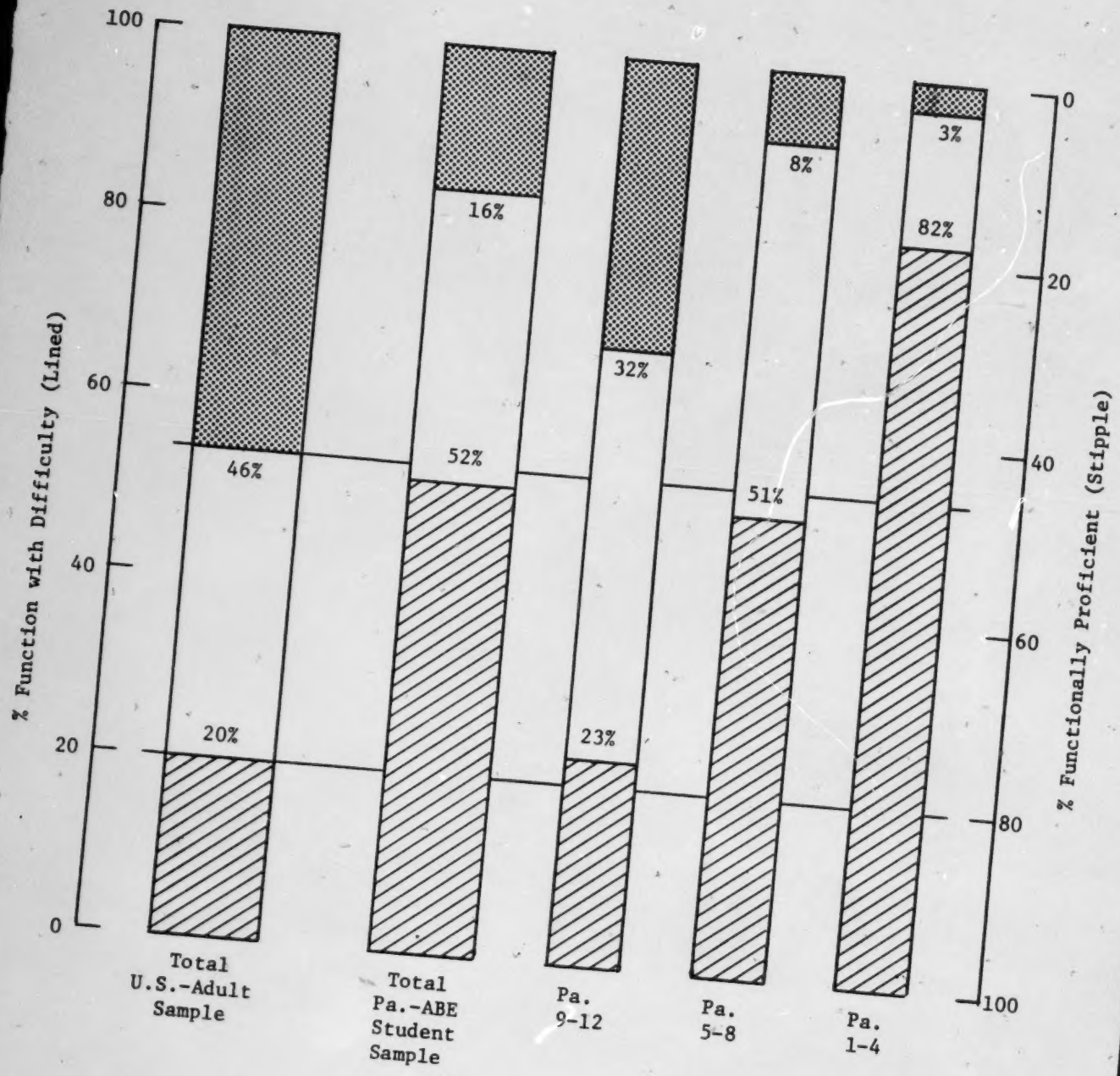


Figure 4. Estimated Overall APL Competency Levels for U.S. Adult and Pennsylvania ABE Student Samples

Competency levels by specific APL knowledge and skill areas, for the total student sample, are shown in Table 3. About a quarter of the ABE students demonstrated Level III proficiency in the three areas of occupational knowledge, health, and community resources. Roughly a fifth achieved this level of competency in government and law, and only a little better than a tenth in consumer economics.

Table 3

APL Competency Levels in Specific Knowledge and Skill Areas for Total ABE Student Sample (N = 1,580)

APL Area	Percentage by APL Competency Level		
	I	II	III
Knowledge			
Occupational Knowledge	46	29	25
Health	44	31	25
Community Resources	46	29	25
Consumer Economics	72	17	11
Government and Law	53	26	21
Skill			
Writing	40	26	34
Reading	50	31	19
Computation	69	19	12
Problem-Solving	66	26	8

Viewed in terms of their proficiency in the four skill areas assessed by the APL, Pennsylvania ABE students achieved their best performance in writing, a third of the total sample demonstrating Level III competency in this skill. (Test items which assessed the skill of writing included such tasks as writing a letter to excuse a child's absence from school, or filling out a personal check, a job application, or a health insurance claim.) Almost a fifth of the students performed at APL Level III in reading (understanding union or company benefits, health insurance policies, road maps, income tax returns, etc.). Tasks involving computation skills (figuring out take-home pay, selecting a best buy, counting calories, etc.) apparently created more difficulty, only 12% of the sample students performing at Level III in this category. Fewer than 10% achieved the Level III rating in problem-solving (planning a family menu, knowing what to do when constitutional rights are violated, etc.).

GENERALIZED BEHAVIOR STATEMENTS OF APL COMPETENCIES

In addition to student performance on the actual APL test items, an effort was made to obtain the reaction of both students and teachers to the functional competency concept. To this end, a group of twenty generalized behavior statements were developed by the research team, illustrating the sort of tasks involved in each of the twenty APL skill-by-knowledge cells. These statements, shown on page 24, were presented to the sample students in the 60 target programs and to their teachers, to obtain needs assessment and APL acceptability information.

Students were asked to indicate whether they could or could not "do tasks like this now," and whether, if an adult education course could teach them "to do this sort of task well," they would take such a course. Teachers were asked to indicate whether they taught this type of competency specifically; whether (if they did not teach it as such) they provided training in the skill involved; and how important they considered this type of competency for their students.

Generalized Behavior Statements of APL Functional Competencies

CONSUMER ECONOMICS

1. *Reading:* Being able to read catalogs, consumer guides, advertisements, and similar materials, in order to select goods and services that you need daily.
2. *Writing:* Being able to write a check, fill out a bank deposit slip, file an insurance claim, etc.
3. *Computation:* Being able to select the best buy in a food store by calculating cost per pound, cost per quart, etc. for different brands of the same product.
4. *Problem Solving:* Knowing what to do when you feel that a store has misrepresented a product through advertising, or that you have been overcharged, etc.

OCCUPATIONAL KNOWLEDGE

5. *Reading:* Being able to read and understand regulations about your eligibility for union and company benefits, unemployment compensation, etc.
6. *Writing:* Being able to write a letter in response to a help-wanted ad, and being able to fill out a job application.
7. *Computation:* Being able to figure out your take-home pay when you have worked part of the time at your regular rate and part of the time at an overtime rate.
8. *Problem Solving:* Being able to read help-wanted ads and select a job that matches your interests and abilities with job requirements.

HEALTH

9. *Reading:* Being able to read a health insurance policy and understand how much you have to pay and how much the company will pay toward your hospital costs for a particular illness or injury.
10. *Writing:* Being able to fill out an application for a health insurance claim, or to write a note to your child's school to explain that he was absent because of illness.
11. *Computation:* Knowing how to figure out the total number of calories in a meal from a chart showing the calories contained in various foods.
12. *Problem Solving:* Being able to plan a family menu so that you can choose a variety of inexpensive foods that provide healthy well-balanced meals.

COMMUNITY RESOURCES

13. *Reading:* Being able to use a road map, and to know how to read bus, train, and airline schedules.
14. *Writing:* Being able to write a letter to a hotel or motel before starting on a trip in order to reserve rooms for your family.
15. *Computation:* Being able to figure out how much additional money you would have to pay for gasoline next year if the state gasoline tax is increased by twenty-two percent.
16. *Problem Solving:* Being able to decide quickly which agencies or community service groups to call first in different emergency situations.

GOVERNMENT AND LAW

17. *Reading:* Being able to read and understand the directions for filling out an individual income tax return.
18. *Writing:* Being able to write a letter to your congressman explaining your views or opinions on a current issue.
19. *Computation:* Being able to determine the number of U.S. senators and representatives from your state when you know the population of the state.
20. *Problem Solving:* Being able to decide when your constitutional rights have been violated, and to know what to do about it.

Student and Teacher Responses to Behavior Statements

Responses of students and teachers to these twenty behavior statements are presented by grade level (1-4, 5-8, 9-12) in Figures 5, 6, and 7. In each figure, the bars in the first column represent the percentages of students who indicated that they could not do tasks of the type illustrated well enough now. The second column shows the percentages of students who indicated that they would either probably or definitely take a course that could teach them to do tasks of the sort indicated. The magnitude of the percentages in this column is taken to be the interest of ABE students in acquiring the competencies illustrated by these APL-type tasks. In the third column are the percentages of teachers who indicated that they do not teach this competency at all. The fourth column presents the percentages of teachers who indicated that they considered the competency illustrated as either important or very important for ABE students. The magnitude of the percentages in this column is taken to be an indication of teachers' perceptions of the importance of mastery of these tasks for ABE students.

A majority of the students (over 50%) at the 1-4 level indicated on fourteen of the behaviors that they could not do the tasks well enough now. At the 5-8 level over half of the students responded that they could not do the tasks well enough now on seven of the behaviors. And at the 9-12 level a majority responded they couldn't do five of the tasks well enough now.

On the "Would Take" scale, at the 1-4 level over half of the students expressed interest in all twenty of the behaviors. At the 5-8 level a majority expressed interest in seventeen of the twenty behaviors, and at the 9-12 level more than half expressed interest in eleven.

A majority of the teachers at the 1-4 level indicated that they do not teach the competency at all in the case of six of the behaviors. At the 5-8 and 9-12 levels over half of the teachers responded that they do not teach the competency at all for three and six of the tasks, respectively. However, while very few teachers teach the competencies specifically, many indicated that they provide some general training in the skill involved.

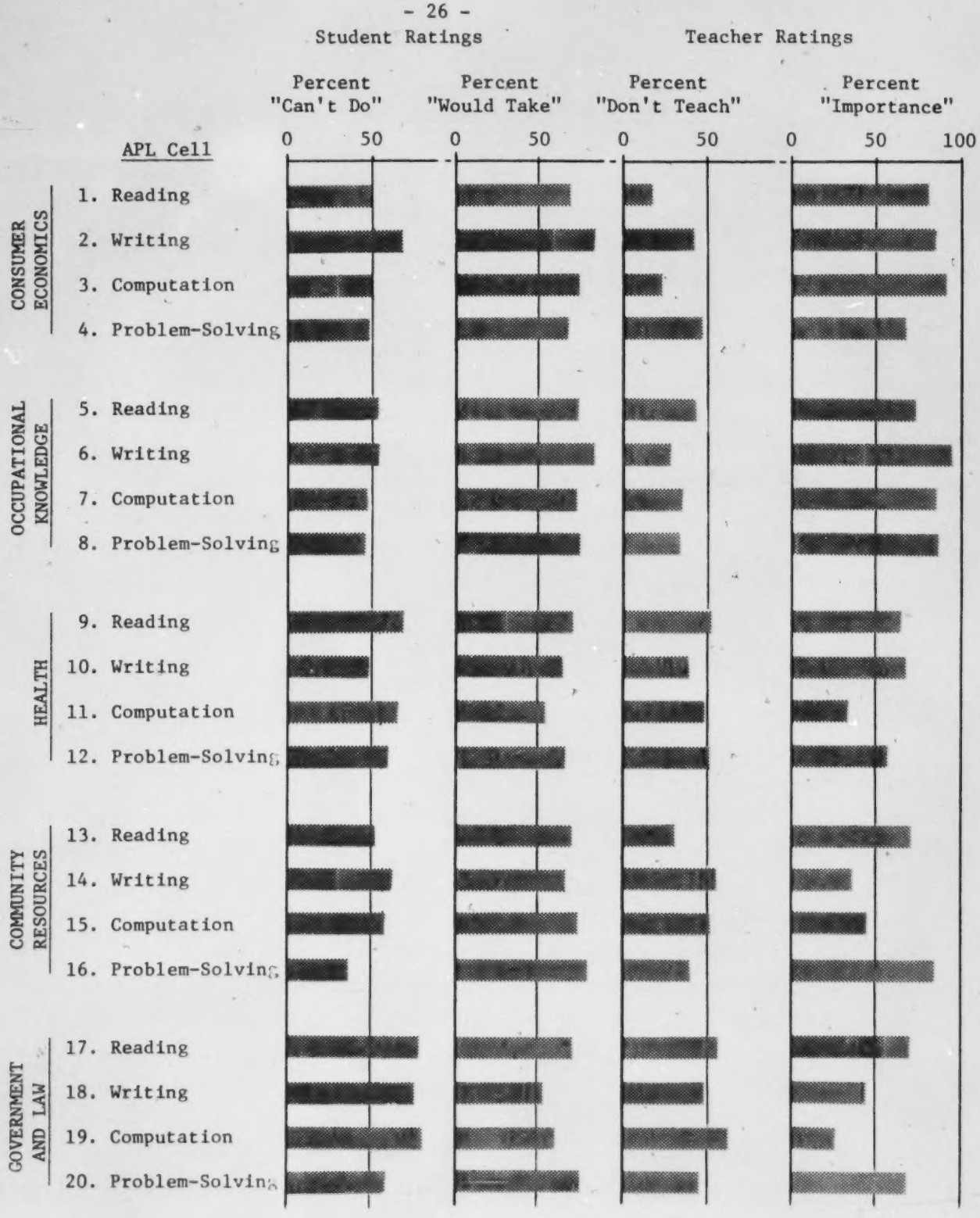


Figure 5. Responses of 1-4 Level Students and Teachers to Generalized APL Behavior Statements

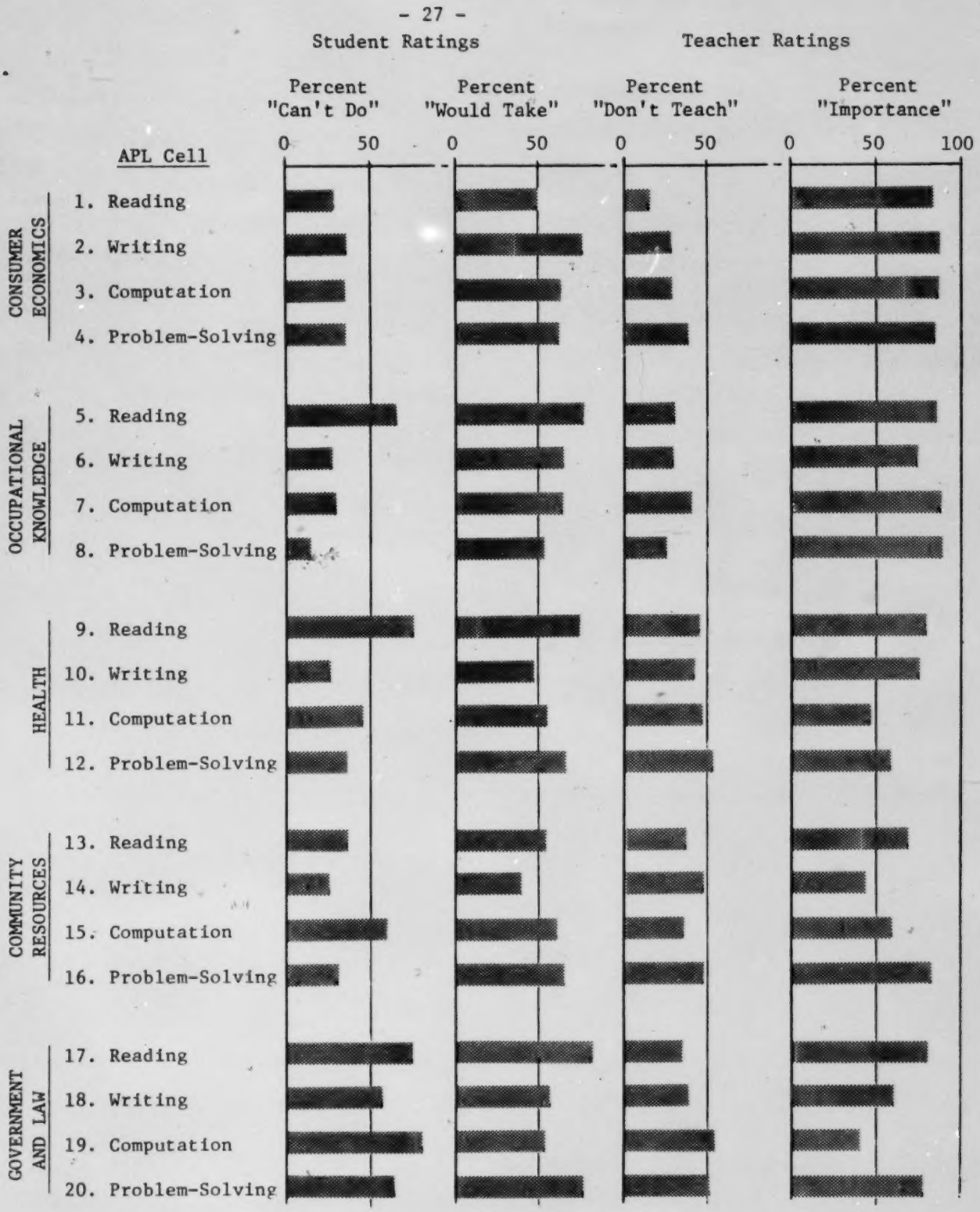


Figure 6. Responses of 5-8 Level Students and Teachers to Generalized APL Behavior Statements

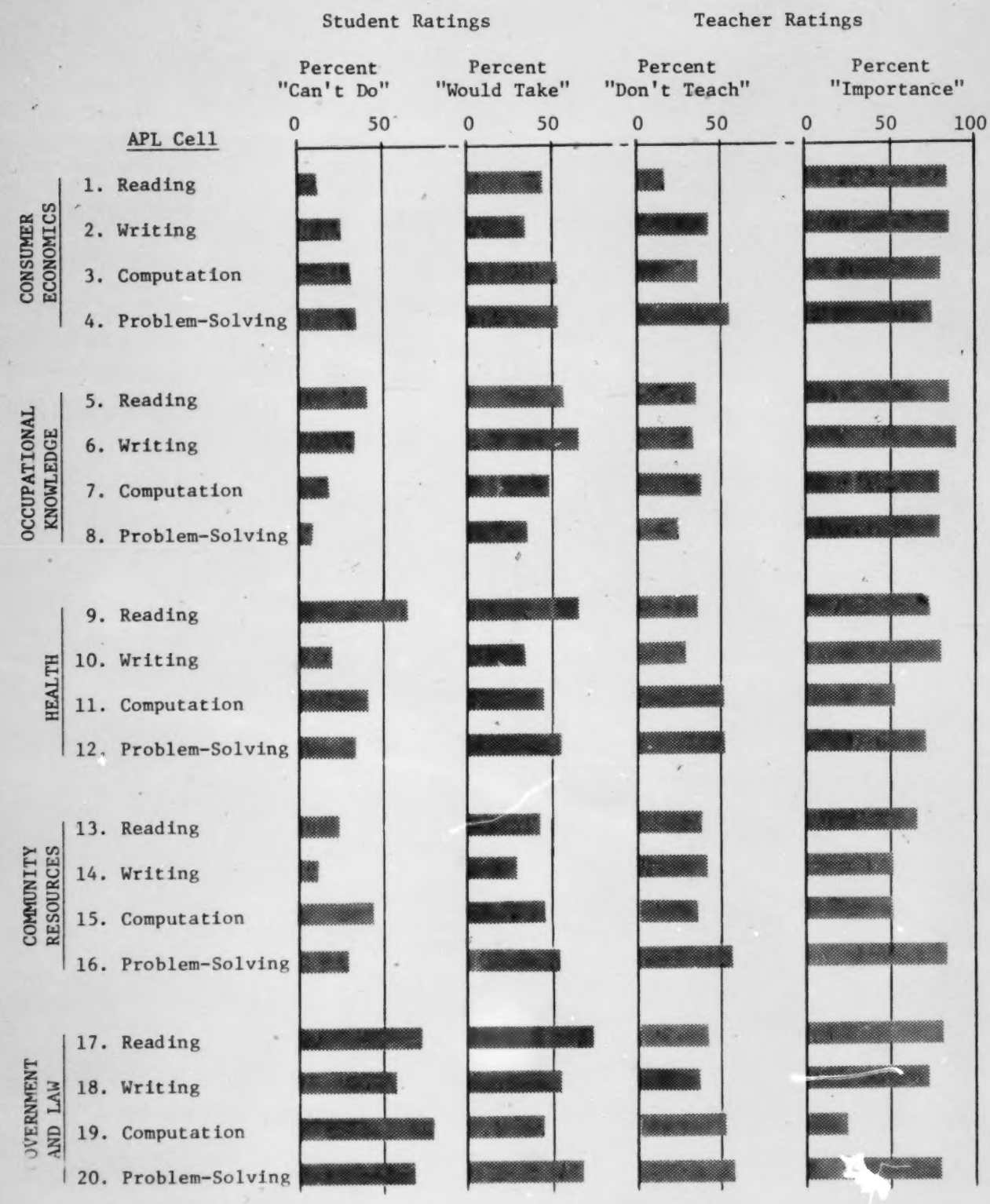


Figure 7. Responses of 9-12 Level Students and Teachers to Generalized APL Behavior Statements

On the "Importance" scale, more than half of the teachers judged the behaviors to be important for ABE students on fifteen of the twenty tasks at the 1-4 level, seventeen at the 5-8 level, and nineteen at 9-12 level.

These results speak more directly to the issue of the acceptability and need for APL- or competency-based instruction than do the APL performance results. It is clear that ABE teachers judge the APL behaviors to be important. Many ABE students feel they cannot now perform APL-related tasks and indicate interest in APL-oriented courses. Additionally, APL performance indicates that many students function with difficulty, according to the APL definition of competency. And while evidence suggests that many ABE teachers are providing some general training in APL-type competencies, very few teachers appear to be providing well-planned, specific instruction that is competency-based.

THE APL ACCEPTABILITY WORKSHOP

In May 1976, the APL Acceptability Workshop was held in Harrisburg. Designed to acquaint the 33 participants with some of the survey results and to secure their judgments on the potential use of APL in Pennsylvania, this workshop included a review of survey data on student performance and student and teacher comments for each of the ABE levels, the ranking by participants of APL knowledge areas for relevance to their particular ABE programs, and the prioritization, for instructional and measurement purposes, of the functional competencies reflected in the behavior statements.

Uses of APL

Workshop participants were first asked to respond to questions concerning a small sample of APL test items they had previously been exposed to. Ninety-four percent responded in the affirmative when asked if they thought the test items could accurately assess functional competency in the general population. When asked if these items were equally applicable in assessing functional competency in ABE students a slightly smaller percentage (82) answered yes.

Participants were then asked to designate possible uses for the APL. Seventy-six percent felt the APL would be effective in establishing statewide criteria for different grade levels, only 33% felt it would be an effective indicator of group achievement, 73% felt it would be an effective indicator of individual achievement, and 67% indicated that they thought the APL could be an effective diagnostic-placement tool.

Ranking of APL Cells on the Basis of Student Performance

After having been shown the survey results of student performance within each of the APL skill and knowledge areas, workshop participants were asked to rank the twenty cells in order of their importance for the development of basic ABE curricula, with 1 indicating the highest priority. This operation was conducted for each of the three grade levels (1-4, 5-8, 9-12). Table 4 gives the results.

In order to obtain a better indication of the participants' feelings regarding the relative priorities of each of the knowledge and skill areas, the rankings across each grade level were averaged to obtain a ranking value for each cell. These averages are displayed in Table 5. By adding along each column and row and then ranking those totals from lowest to highest, it is possible to gain a rough idea of the relative importance the workshop participants gave to each knowledge and skill area in the development of core curricula.

Ranking of APL Cells on the Basis of Behavior Statement Comments

Workshop participants were then exposed, successively, to the survey results obtained on the generalized behavior statements of APL competencies (as summarized in Figures 5, 6, and 7, above). They were first shown the teachers' rankings of the importance of each of the competencies (column 4 in the tables), then the teachers' indication of whether or not they now teach the competency (column 3), then the students' expressed willingness to take a course designed to provide the competency (column 2), and finally, the students' perceptions of their abilities in the competency involved (column 1). Again the ranking operation was conducted for each of the three levels: 1-4, 5-8, 9-12.

Table 4

Mean Priority Rankings for Curriculum Development of APL Skills as Applied to Knowledge Areas, by ABE Grade Level (1=Highest Priority)

Knowledge Area/Skill	Grade Level			
	1-4	5-8	9-12	All Levels
Consumer Economics				
Reading	3.8	6.3	7.0	5.8
Writing	13.7	10.9	12.2	12.2
Computation	6.8	6.9	4.1	6.0
Problem-Solving	8.4	6.8	5.9	7.0
Occupational Knowledge				
Reading	2.4	4.4	6.9	4.5
Writing	8.7	9.5	10.8	9.7
Computation	6.2	7.7	8.8	7.6
Problem-Solving	5.5	6.4	4.4	5.5
Health				
Reading	8.4	7.2	8.7	8.0
Writing	18.0	15.1	13.7	15.5
Computation	12.9	12.2	11.3	12.1
Problem-Solving	9.4	8.2	9.7	9.0
Community Resources				
Reading	6.7	9.5	11.1	9.1
Writing	16.5	14.1	15.0	15.1
Computation	14.6	15.4	15.7	15.2
Problem-Solving	10.5	10.2	9.7	10.2
Government and Law				
Reading	12.3	11.8	12.1	12.0
Writing	18.0	18.0	16.5	17.5
Computation	15.3	15.8	14.3	15.2
Problem-Solving	11.9	14.4	11.8	12.8

After examining each set of data, the participants were asked to evaluate its influence on the development of core curricula by prioritizing the APL skill-knowledge cells represented.

Table 5

Average Cell Rankings for All Grade Levels Based on Observation of Student Performance with Resultant Priority Rankings for Each Knowledge and Skill Area (1 = Highest Priority)

	Knowledge Area						
Skill	Consumer Economics	Occupational Knowledge	Health	Community Resources	Government and Law	Row Totals	Rank
Reading	5.8	4.5	8.0	9.1	12.0	39.4	1
Writing	12.2	9.7	15.5	15.1	17.5	70.0	4
Computation	6.0	7.6	12.1	15.2	15.2	56.1	3
Problem-Solving	7.0	5.5	9.0	10.2	12.8	44.5	2
Column Totals	31.0	27.3	34.6	50.6	57.5		
Rank	2	1	3	4	5		

Table 6 presents a summarization of the rankings made. The figures shown were obtained by adding the mean ranking values from each of the four tasks for each behavior cell (skill area applied to knowledge area). A further addition along each column and row yielded a total ranking value for each skill and knowledge area. Ranking these values from lowest to highest gives some indication of which knowledge and skill areas

the workshop participants considered most important for core curriculum development, on the basis of their examination of the behavior-statement results. Interestingly enough, the knowledge-area ranking values in this case are identical to those based on student performance, although the skill area rankings vary to some extent.

Table 6

Sums of Ranking Values for Each Skill-Knowledge Cell for All Grade Levels Based on Teacher and Student Reactions to Competency Statements, with Resultant Priority Rankings (1 = Highest Priority)

	Knowledge Area						
Skill	Consumer Economics	Occupational Knowledge	Health	Community Resources	Government and Law	Row Totals	Rank
Reading	31.1	26.5	37.1	53.7	45.4	193.8	2
Writing	23.6	20.4	48.4	66.6	65.3	224.3	3
Computation	24.8	30.2	56.1	60.5	74.5	246.1	4
Problem-Solving	31.7	24.4	40.2	35.9	41.2	173.4	1
Column Totals	111.2	101.5	181.8	216.7	226.4		
Rank	2	1	3	4	5		

For comparative purposes, selected knowledge-area data from Figures 5, 6, and 7, and Table 6 are presented in Table 7. There seems to be general consensus that--in terms of applicability to the development of core curricula for Pennsylvania ABE programs--the skills associated with

occupational knowledge should have highest priority--at all ABE levels of instruction--followed closely by skills related to consumer economics. Of somewhat less importance, it appears, are skills involved in matters of health, community resources, and government and law--in that order.

Table 7

Comparative Rankings of APL Knowledge Areas for Each ABE Grade Level by Student Interest, Teachers' Estimates of Importance, and Workshop Participants' Priorities for Curriculum Development

APL Knowledge Area	Ranking of Student Interest (Survey Data)			Teachers' Ranking of Importance (Survey Data)			Priority for Curriculum Development (Workshop Data)		
	Instructional Level			Instructional Level			Instructional Level		
	1-4	5-8	9-12	1-4	5-8	9-12	1-4	5-8	9-12
Occupational Knowledge	1	2	3	1	1	1	1	1	1
Consumer Economics	2	5	1	2	2	2	2	2	2
Health	5	3	4	5	3	3	3	3	3
Community Resources	3	4	5	4	5	4	4	4	4
Government and Law	4	1	2	3	4	5	5	5	5

PROGRAM ANALYSIS

The two major data sources for the Program Analysis Component of the overall ABE assessment project were the four Staff Surveys and the Program Operations Workshop. In both survey and workshop, selected ABE staff members were given the opportunity to evaluate the effectiveness of their own ABE programs within Mezirow's framework of six major program areas: goal-setting, staffing, in-service education, collaboration, recruitment, and instruction.

This section deals successively with each of these areas. Although their identification provided a logical basis for the assessment of program activities, it should be borne in mind that these six areas are not mutually exclusive categories with definite boundaries. All, of necessity, contain overlapping features. Thus elements of one area could be of significant value in successful procedure implementation within another; that is, a proposed solution to a problem within one area could have direct impact in another area.

The Program Analyses Surveys provided an opportunity for 277 ABE administrators, supervisors, teachers, and counselors (associated with the 60 sample programs) to comment on various aspects of their ABE practices. The data thus collected were then analyzed and presented in summary form to the 55 participants of the Program Operations Workshop, which was held at University Park in June 1976. Staffed by members of the project research team and by two consultants on group process techniques, this highly structured workshop had as its main objective the development of feasible recommendations for improving the overall effectiveness of ABE programs. To this end participants were assigned--at their own requests, to the extent possible--to six small working groups, with each group concentrating on a specific program area. The participants in each group were asked to review the survey data related to the designated area and, on the basis of these data and of their own ABE experience, to identify a number of problems associated with that particular area of ABE practice. Having then chosen the one problem deemed most pressing, they were asked to propose alternative solutions to it,

to select the most feasible solution, and to formulate a specific action plan for its solution. At the final session, a member from each group reported that group's conclusions to all the workshop participants.

The purpose of this section is to summarize for each of the six designated areas of ABE program operations selected information collected as part of the Program Analysis Surveys as well as the conclusions reached at the Program Operations Workshop. In most respects the problems expressed by workshop participants are similar to those identified in the surveys.

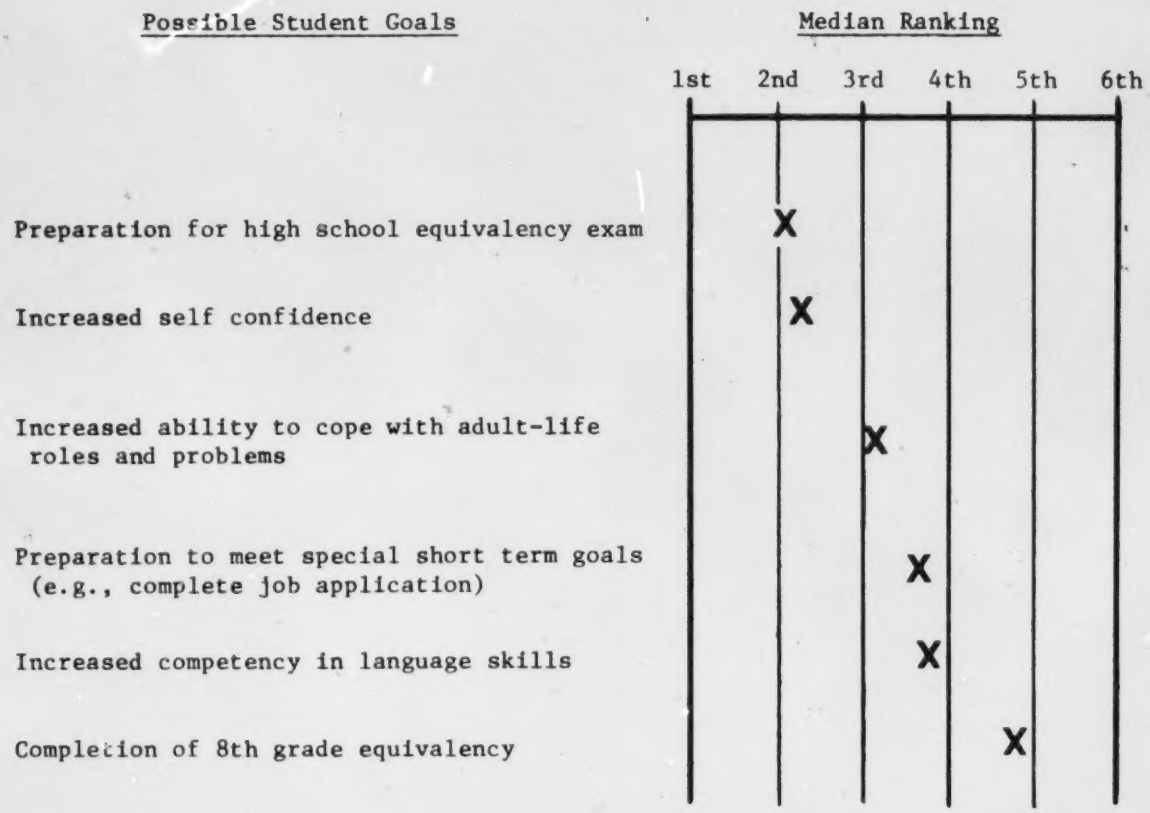
GOAL-SETTING

Goal-setting refers not to the broad general goals of ABE, nor to the specific goals of individual teachers and students, but to the operational goals related to programs, instruction, staff, and students. Goal-setting is influenced by the state ABE plan, by the characteristics and expectation of the local population, and by administrator and staff characteristics.

Some outcomes of goal-setting are the written statements of program objectives, decisions about the target population and recruitment, criteria for staff selection and development, instructional emphases, and class location.

Student Goals

Adult students come to ABE programs with varied expectations. Perhaps the most important expectation is what they hope to achieve in the program. Six of the possible student goals were ranked by ABE counselors as shown in Figure 8.



Note: Additional goals mentioned were U.S. citizenship, jail parole, and preparation for technical school/college entrance.

Figure 8. Median Ranking of Counselors' Perceptions of the Importance of Student Goals

(1 = most important)

Factors Influencing Goal-Setting

A number of factors can influence goal-setting, e.g., program priorities, and policies for ABE programs. Supervisors indicated the extent to which a variety of factors (see Figure 9)[2] influence the goals and priorities of their programs. Results of this rating suggested that the state plan, general population characteristics, and the expectation of participants exert the greatest influence.

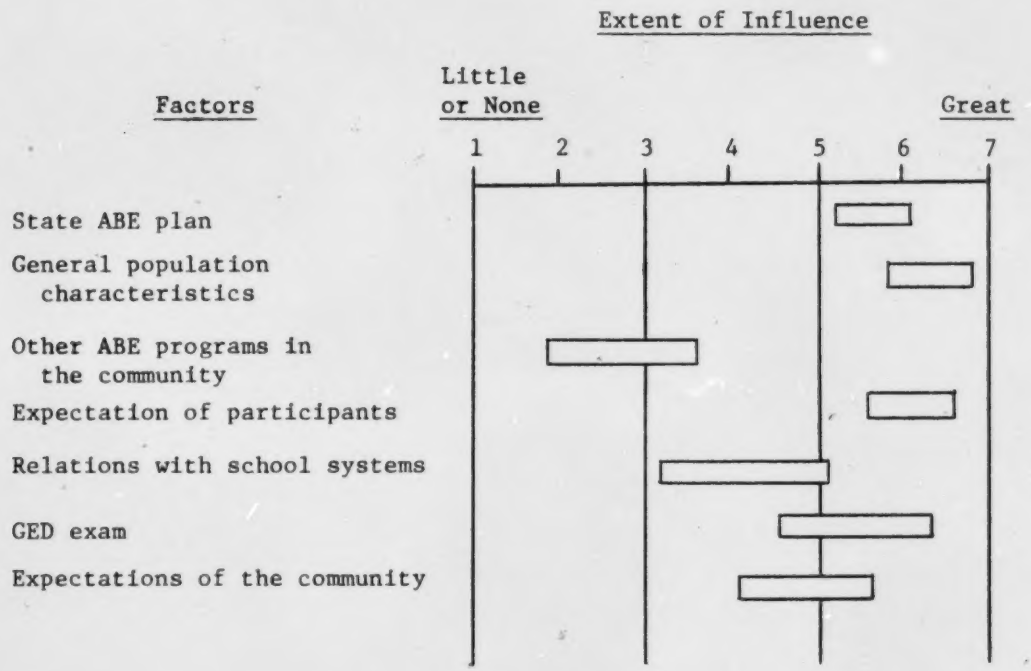


Figure 9. Factors Influencing Goals and Priorities of ABE Programs, as Perceived by Supervisors

[2] In plotting the results of questions requiring personal judgment, bars have been utilized in order to show both the average response and a measure of the dispersion of responses. The midpoint of the bar indicates the mean (average) value, about which the bar has been extended plus and minus ½ standard deviation, thus including approximately 40% of the responses. The length of the bar also is an approximation of the amount (short = high, long = low) of agreement.

Over half of the supervisors reported that they had recently made goal-setting policy decisions concerning the emphasis placed on various instructional areas and the selection of student recruitment strategies. About 40% of the supervisors indicated that policy decisions had been made concerning the definition of the target population.

Improving the Goal-Setting Process

Among the suggestions offered by supervisors for improving the goal-setting process were the following:

- cooperation and collaboration among all staff members at periodic workshops;
- creation of a local Community Advisory Council on the Development of ABE Programs;
- use of APL as a basis for goal-setting, especially at the 4-8 level;
- linking of vocational education and ABE;
- expansion of ABE programs to include tutorial services for the homebound, use of mobile units for rural areas, programs for the retired, etc.; and
- articulation of state and federal commitment to ABE funding.

Problems in Goal-Setting

Workshop participants indicated that the major problem in goal-setting is the discrepancy which often exists between program goals and student goals. This problem is also related to the fact that many students do not have clear-cut goals when they enter a program. Also, a number of participants felt that program goals lack sufficient specificity, thus increasing the difficulty of attaining them.

It was generally agreed that by accurately assessing community needs and by documenting the personal and work experiences of students as well as their educational achievements and limitations, more effective ABE program goals could be identified. Counselors, it was suggested, should play a larger role in planning and modifying programs. Continuous assessment and re-evaluation should be maintained.

STAFFING

The staffing of ABE programs is obviously crucial to program effectiveness. Appropriate criteria must be established for selection of teachers, counselors, and other personnel based on the competencies that are most desirable, and then the persons meeting these criteria must be recruited and assigned to particular positions.

Selection criteria are determined by the needs of the programs, but they may also be affected by state law, local school system policy, or union contracts. Certification, training, professional experience, co-sponsorship arrangements, ethnicity, and personality may all play a part in individual hiring.

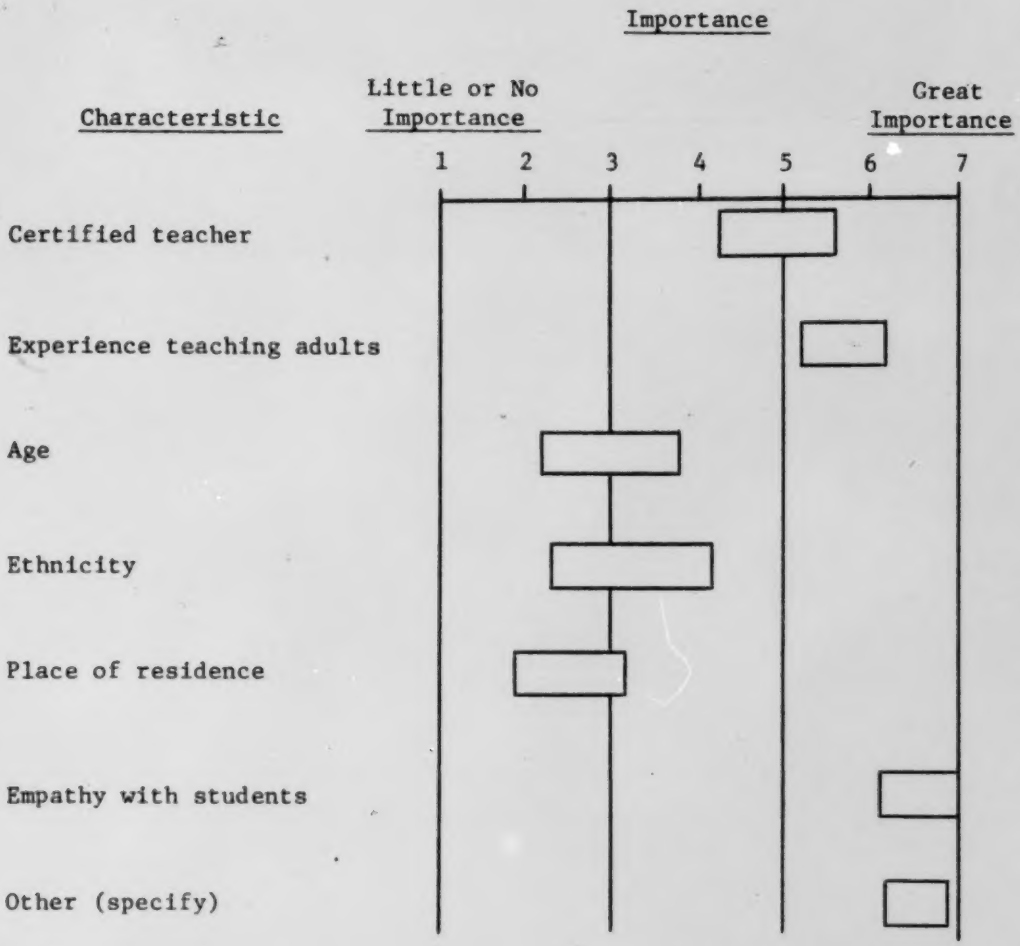
Major sources of ABE teachers and counselors include elementary and secondary school teachers, other professional school system employees, and other persons, with or without training, outside the school system. The pool of personnel and the formality of recruitment vary considerably from one locale to another.

In addition, staff satisfaction, turnover, and student achievement are indicators of the effectiveness of staffing.

Staff Characteristics

The relative importance of several criteria used by supervisors in hiring ABE teachers is shown in Figure 10. Empathy with students is considered to be essential, with experience in teaching adults also of great importance. Workshop participants also dwelt at some length on the importance of empathy and humanistic values, together with flexibility, enthusiasm, and positive personality dimensions. They expressed a need for some effective means of screening candidates on these variables.

All supervisors sampled reported that prior training and/or experience is taken into account in assigning teachers to a particular class. Less than 25% stated that ethnicity of the teacher is considered, while about 10% take sex and 5% take age into account.



Note: Mentioned under "other" are flexibility, enthusiasm for teaching, warmth and understanding, etc.

Figure 10. Importance of Staff Characteristics As Judged by Supervisors

Survey results indicate that administrators and supervisors devote an average of 10 and 12 hours per week, respectively, to the supervision of their local ABE programs. The average teacher is employed 13 hours by ABE out of an average of 37 working hours per week. Thus, it appears that most teachers have other, probably full-time, employment in addition to ABE. Administrators and supervisors estimated that an average of 52% and 63% of their time, respectively, is compensated by federal funds administered through the state. On the average, administrators reported having 5 years of ABE supervisory experience and supervisors reported 4 years. Counselors reported an average of 4 years ABE counseling experience.

Approximately 70% of the ABE teachers reported having been employed by a public school system prior to their being hired as ABE teachers.

About 10% of the teachers surveyed indicated that they possess no teaching certification. Sixty percent reported having a secondary teaching certificate while the remaining teachers possess either elementary, reading, special education, or some other type of certificate.

Teachers, on the average, stated that they are quite satisfied with their present position as ABE teachers.

Administrators reported little difficulty in finding and hiring qualified personnel. They also indicated that they have no difficulty retaining staff.

Staff Selection

Both the survey respondents and the workshop group addressed the issue of hiring staff on the basis of ability rather than specific certification requirements. Workshop participants felt that ability should be the sole determining factor in the hiring of staff members. ABE supervisors seemed to agree with this philosophy, suggesting the establishment of an ABE teacher personality prototype to aid in the hiring of instructors.

The degree to which ABE supervisors are and should be involved in the selection and hiring of teachers was a relevant issue for both workshop and survey participants. The consensus opinion among the workshop participants was that a lack of supervisory input existed within the hiring

process. While a majority of the supervisors in the survey felt that supervisory involvement was adequate, a significant number agreed with the workshop assessment.

Workshop participants were also concerned with the problems of political intrusions into the staffing process (that is, hiring and firing within a union setting) and with inadequate staff evaluation procedures.

Supervisors provided the following suggestions for improving ABE staffing:

more counselors are needed;

aides could be more effectively used and should be better paid;

former ABE students could be more extensively used ("There should be some way of recognizing officially," one supervisor suggested, "that an individual can progress from a student to an aide to a teacher without a lot of formal training");

an "interest questionnaire" should be developed and used to recruit staff; and

more effort should be made to staff programs with full-time rather than part-time teachers.

IN-SERVICE EDUCATION

In-service education refers to organized efforts to help ABE staff enhance and update professional skills, attitudes and insights in order to improve their performance. This may range from meetings devoted mainly to administrative procedures to detailed analysis of personal instructional practices.

The extent and type of in-service education depends upon funds and staff time, as well as the level of prior training and competence, the receptivity of the staff to training, and the perception of training needs by teachers, administrators, and supervisors. The processes involved in developing an in-service program include selecting trainees, trainers, and sites, setting objectives, choosing methods, and evaluating the effectiveness of the instruction.

The in-service instruction area is clearly related to the outcome of the staffing process, to the types of students being taught, and to the general goals of the specific program.

Participation and Topics

Although the results of the survey, as indicated by Figure 11, suggest that the majority of ABE staff members have participated in some in-service program within the past year, the administrators interviewed almost unanimously recommended more training if funds could be made available for this purpose. They noted that those programs that have instituted in-service training on a regular basis have experienced clearly-discernible improvement, especially in rapport and staff morale.

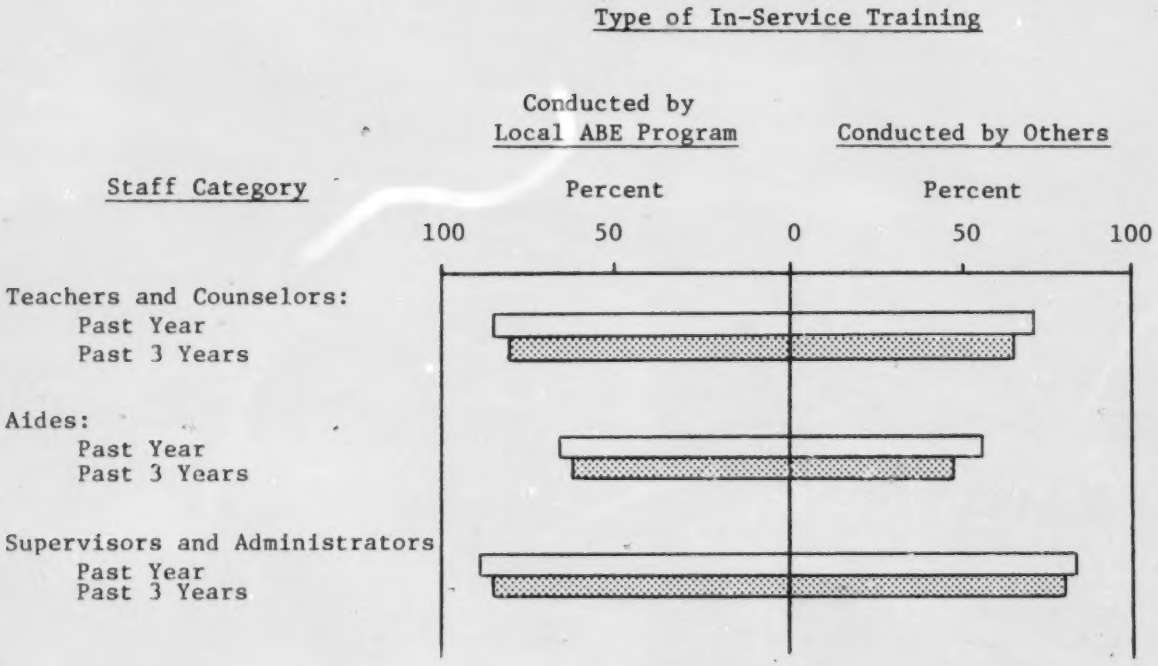


Figure 11. Staff Participation in In-Service Training

While 73% of the counselors reported having had formal training as a counselor, and 68% reported having attended counselor in-service training, almost half expressed a need for more in-service training oriented to ABE problems, specifying particularly a need for information concerning the availability of various community services.

About 65% of the aides have received some pre-service or in-service training. Among programs reporting the use of volunteers, 40% have provided pre-service or in-service training.

In Figure 12 the coverage of a variety of possible in-service topics is presented. It is apparent that there are some discrepancies between the supervisors' and teachers' reports on the degree of coverage.

In most cases, some incentive is used to encourage participation in in-service activities. Sixty percent of the supervisors reported using extra pay as an incentive, while 55% reported using released time. In only about 5% of the cases was condition of employment noted as an incentive.

Formats

A variety of general formats is used to structure in-service activities. Figure 13 presents supervisors' rankings of the frequency with which they take a number of approaches.

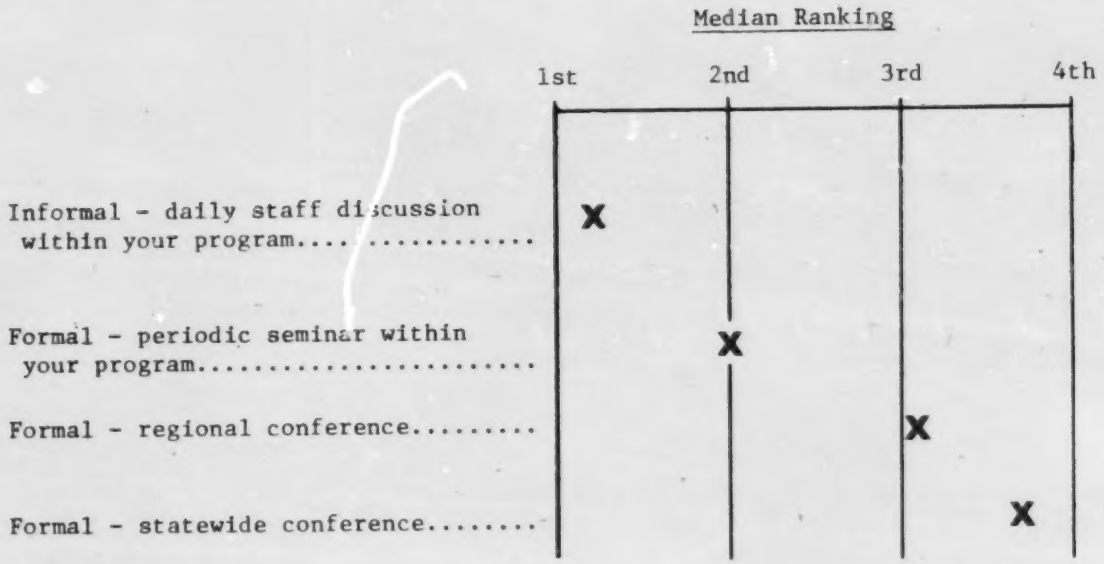


Figure 13. Formats Used for In-Service Training

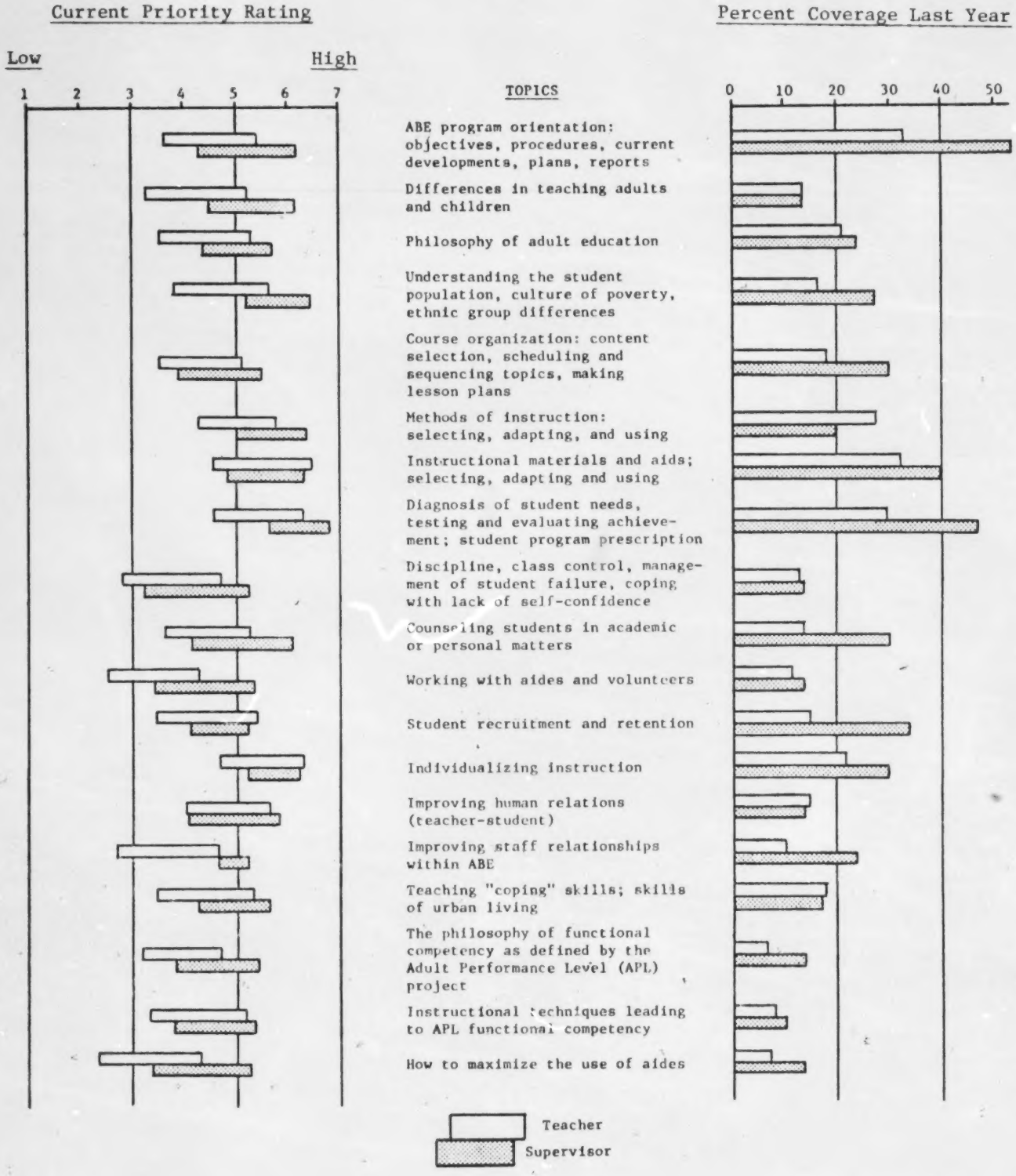

Current Priority Rating
Low
High
1
2
3
4
5
6
7
TOPICS
ABE program orientation: objectives, procedures, current developments, plans, reports
Differences in teaching adults and children
Philosophy of adult education
Understanding the student population, culture of poverty, ethnic group differences
Course organization: content selection, scheduling and sequencing topics, making lesson plans
Methods of instruction: selecting, adapting, and using
Instructional materials and aids; selecting, adapting and using
Diagnosis of student needs, testing and evaluating achievement; student program prescription
Discipline, class control, management of student failure, coping with lack of self-confidence
Counseling students in academic or personal matters
Working with aides and volunteers
Student recruitment and retention
Individualizing instruction
Improving human relations (teacher-student)
Improving staff relationships within ABE
Teaching "coping" skills; skills of urban living
The philosophy of functional competency as defined by the Adult Performance Level (APL) project
Instructional techniques leading to APL functional competency
How to maximize the use of aides
Percent Coverage Last Year
0
10
20
30
40
50
Teacher
Supervisor

Figure 12. Topics Covered in In-Service Training as Reported by Teachers and Supervisors

Teachers evaluated some methods of training on the basis of (1) the extent of the practice in their in-service program and (2) the value of the experience to them. Figure 14 summarizes their evaluations.

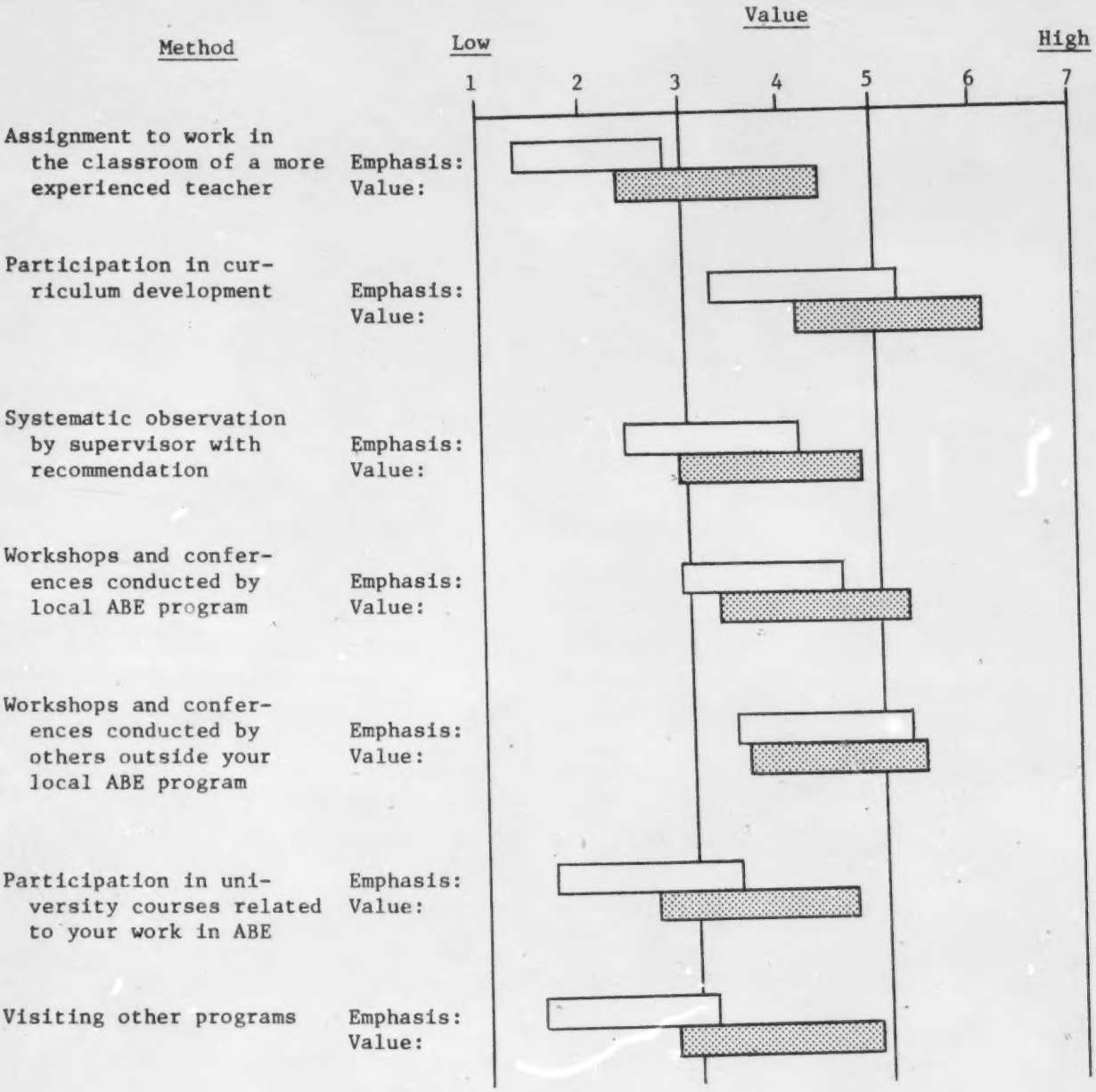


Figure 14. Relative Emphasis and Value to Teachers of In-service Training Methods

Improvement of In-Service Training

Workshop participants agreed with survey respondents that the quantity, rather than quality, of training tends to be inadequate. They recommended the following steps be taken:

- formation of a statewide pool of resource experts and consultants who would be responsible for the development of effective in-service instruction programs;
- development of regional and statewide administrative workshops for the discussion of common in-service problems;
- utilization of resource experts and consultants at regional meetings; and
- increasing the number of in-service sessions for all staff members along with increased time allocation for session attendance.

Survey participants who served in an administrative capacity felt that increased funding would be necessary if suggested solutions to in-service problems are to be effective.

Of the variety of possible formats that can be used in the structuring of in-service sessions, supervisors felt that an informal, daily staff discussion is the most effective. The topics considered most important by supervisors and teachers for discussion at in-service sessions include instructional methods and materials, diagnosis and evaluation of student needs and achievement levels, and the individualizing of ABE instruction.

COLLABORATION

The two most frequent forms of collaboration between an ABE program and other community organizations are the co-sponsorship of classes and the referral of students. Other agencies can often identify clients in need of basic education and, conversely, ABE programs may find students in need of such services as child care, transportation, and job placement that other agencies may offer.

Referral agencies and co-sponsors both facilitate recruitment. They also tend to influence goal-setting through the interaction of the other

agencies' goals with those of ABE, and as a consequence of the characteristics of the students that are recruited.

There are several potential advantages to collaboration. It may enable ABE programs to diversify the location of classes at minimum cost and increase the number of students they serve. It may also increase the visibility and the prestige of the program in the community. Figures 15 and 16 show the rank that supervisors assigned to various advantages and disadvantages incurred by collaboration with other agencies.

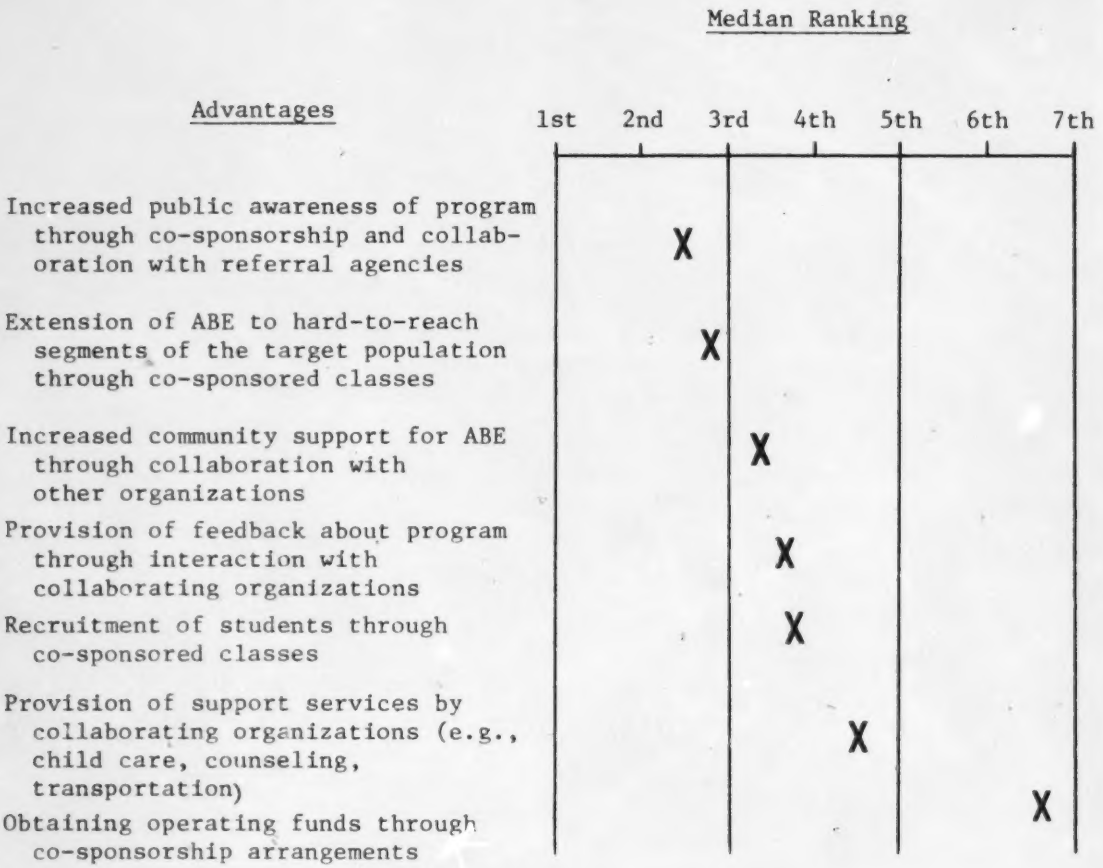

Median Ranking
Advantages
1st
2nd
3rd
4th
5th
6th
7th
Increased public awareness of program through co-sponsorship and collaboration with referral agencies
Extension of ABE to hard-to-reach segments of the target population through co-sponsored classes
Increased community support for ABE through collaboration with other organizations
Provision of feedback about program through interaction with collaborating organizations
Recruitment of students through co-sponsored classes
Provision of support services by collaborating organizations (e.g., child care, counseling, transportation)
Obtaining operating funds through co-sponsorship arrangements

Figure 15. Supervisors' Ranking of the Advantages of Collaboration

(1 = greatest advantage)

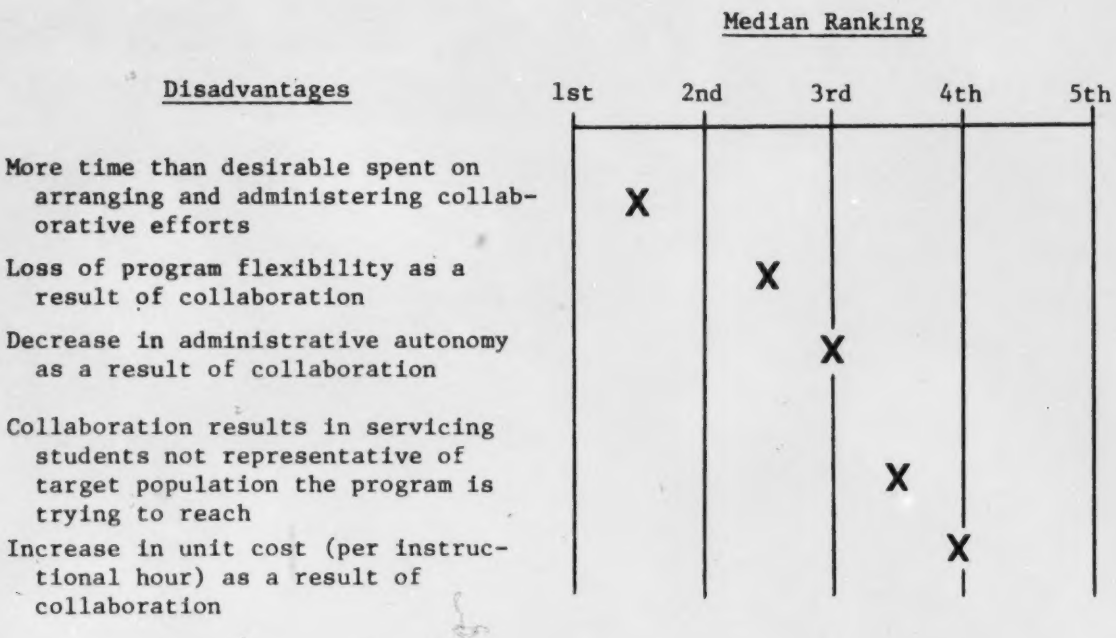

Median Ranking
Disadvantages
1st
2nd
3rd
4th
5th
More time than desirable spent on arranging and administering collaborative efforts
Loss of program flexibility as a result of collaboration
Decrease in administrative autonomy as a result of collaboration
Collaboration results in servicing students not representative of target population the program is trying to reach
Increase in unit cost (per instructional hour) as a result of collaboration
X
X
X
X
X

Figure 16. Supervisors' Rankings of the Disadvantages of Collaboration

(1 = greatest disadvantage)

While only 17% of the supervisors interviewed reported any major problems in working with other agencies, there was a great deal of agreement between survey and workshop participants on the nature of the problems that are encountered. Foremost among the impediments to good cooperative relations was poor communications, resulting in a failure to comprehend the nature and philosophy of ABE.

Competition between different ABE programs was cited by survey participants as another major problem in the collaboration area. While this was not listed by the workshop participants as an area of difficulty, the possibility of such problems arising is high, especially in areas where ABE programs overlap.

The solutions proposed by both groups put a heavy emphasis on efforts to increase communication between ABE programs and collaborative organizations. The methods each group would utilize to achieve this greater level

of communication differ, however. The workshop participants focused on the development and state-wide distribution of a brochure which describes the nature and purpose of ABE in a clear, concise manner. A carefully selected task force of ABE personnel would be responsible for its development. Once key personnel within collaborative organizations have received this brochure, personal contact with ABE programs was recommended as a follow-up procedure.

Survey respondents also stressed the development of a unified ABE philosophy which would include the scope of the program, its objectives, and its limitations. In addition, supervisors urged the determination of specific criteria and guidelines for the selection of referrals. Another suggestion involved the establishment of channels of responsibility between ABE programs and collaborative organizations. A constant process of communication, involving continual contact and regular feedback, was considered vital.

RECRUITMENT

The nature and extent of efforts to recruit new students into ABE programs vary widely among programs. It depends on factors such as the level of current enrollment, characteristics of the target population, cooperation and/or competition with other adult learning programs and societal agencies, reputation of the program in the community and, of course, availability of staff and funds. Thus, the recruitment component of ABE programs is linked most intimately to goal-setting, which defines the target population, and to collaboration.

The success of recruitment can be measured in several ways. As a measure of growth, current enrollment figures can be compared with past enrollments. Student characteristics may be compared with the intended target population as an estimate of the appropriateness of recruitment methods. A third measure of success is retention, the proportion of students who remain in the program.

The most frequently used methods of student recruitment, according to the supervisors interviewed in the survey, are agency referral and word of mouth, followed by use of mass media. Supervisors reported that their efforts are most successful in recruiting females, and least successful in attracting the least literate segments of the population to the program.

It is of interest to note that the least literate are recruited primarily by word of mouth and secondarily by agency referral. A number of supervisors, particularly in institutional settings, indicated that they have no recruitment problem, as classes are already overcrowded. However, others felt that recruitment, attendance and retention could all be improved, and both administrators and supervisors offered suggestions, including:

- more extensive use of local media;
- more funds for recruitment, with full-time staff to work in this area;
- closer collaboration with referral agencies, especially public-assistance programs;
- closer student-teacher/counselor relationships, to improve attendance and retention.

Workshop participants, like the administrators and supervisors responding to the survey, singled out closer relations with referral agencies as the most promising means of increasing the effectiveness of recruitment. They developed a systematic plan, consisting of the following steps:

- identifying referral agencies and establishing contact with key personnel in them;
- providing referral agencies with guidelines for recruitment and referral;
- setting up feedback mechanisms so referral agencies can be apprised of student progress;
- opening and maintaining communication channels between referral agencies to eliminate any overlapping and duplication of effort which might exist; and
- formation of advisory councils at the local level (composed of personnel from referral agencies) to provide information to ABE programs in that area.

Retention/Dropouts

Probably the best measure of recruitment success is retention. Thus we were concerned, in the student portion of the survey, with attempting to

understand why students drop out of ABE programs. We used three approaches to this question:

(1) dropouts and students who persisted were compared in terms of a number of demographic characteristics;

(2) the two groups' APL performance levels were compared; and

(3) a sample of dropouts was interviewed and asked their reasons for dropping out.

Because of local variations in attendance levels and the differences between learning centers, classes, and institutions in attendance patterns, we felt it would be unrealistic and misleading to apply a consistent program separation criterion. Therefore the definition of a dropout was left to the discretion of the counselors who identified and interviewed dropouts from the sample of programs under their jurisdiction.

Characteristics. A comparison of students who dropped out of programs with those who remained reveals very few differences related to student characteristics. Males and females are equally likely to drop out; age, years of previous schooling, race, grade at entrance, and employment status are unrelated to persistence. However, there were three survey areas which suggested reasons why some students do not continue.

(1) Goals. Dropouts and persisters are equally likely to give as their reason for enrolling in ABE "helping children with homework," "to get a job," or "to learn English." However, 48% of dropouts, compared to 33% of persisters, stated that their goal was "to get a diploma," while only 25% of dropouts, compared to 33% of persisters, said their goal was "to improve myself." These data suggest that intrinsic motivation may be a significant factor in persisting in ABE.

(2) Effectiveness of instruction. Students who remain in programs are most likely to report that they have made some improvement in reading and writing and much improvement in working with numbers. Dropouts, on the other hand, are more likely than persisters to report "little improvement" in these subjects. These two groups of students also differ in the reported amount of increased outside reading.

(3) Instructional methods. Students who dropped out of ABE programs are less likely than those who remain to say that either self-instruction or working in groups is "very useful," although they do not differ greatly on the alleged usefulness of individual work with the teacher (see data shown below). It appears that students who drop out may need, or feel they need, more individual attention. They may either be less accustomed to independent work or less able to sustain the motivation required for self-instruction.

Student Comments on Instructional Methods (Percent)

	Dropouts	Persisters
Self instruction is very useful	20	30
Working in groups is very useful	29	45
Individual work with the teacher is very useful	57	55

APL Performance. A comparison of APL performances of students who separated before completing the program with the total group is shown below. Because of the small number of dropouts (N = 83) their scores are included in the total group (N = 1,580) with which they are being compared. Nevertheless, the differences that appear in Levels I and II are not large enough to suggest that dropouts and persisters differ significantly in functional competency.

Distribution of APL Performance Levels (Percent)

	I	II	III
Dropouts	56	32	12
Total Group	52	32	16

Reasons for Separation. When students were interviewed, over half of the reasons given for separation could be categorized under the general headings of health, or personal problems and conflicting activities. The most often cited reason for leaving the program was that the work schedule conflicted with program attendance. Home responsibilities, and personal health and illness in the family, were often cited as reasons for withdrawing from the program. Several people stated that lack of child care was preventing them from completing the program. And a few women said that their husbands just didn't want them out of the house in the evening.

A number of other reasons were given for leaving the program. One of the most common was to enter some type of program such as a vocational training or recreational program. Several people stated they just lost interest in the program. A small number express dissatisfaction with the classes. A few wanted more individual attention from the instructor. Some felt that they weren't getting anything out of the classes or that the classes were not relevant to their needs.

Students who dropped out responded very frankly to the course content and the staff. Over 90 percent said that the course content met their expectations, and over 80 percent felt the staff could have done nothing more to help them remain in the program. A few individuals wanted to see the course content aimed at vocational training, and a few others wanted more individual attention.

Some of the counselor-interviewers had a few additional comments to make. They reported that approximately 20% of the students would return to the program when their problems were resolved. At the time of the interview two students had already re-entered the program and two were in the process of doing so. The strongest recommendation coming from the interviewers was that ABE programs and vocational education programs should be scheduled so that they don't interfere with one another.

INSTRUCTION

Instruction is the central area of ABE programs. It covers a range of activities, from the traditional classroom setting where a teacher works with a group of students to the highly individualized learning laboratory and individual tutoring. Characteristics of the instructional process include subject emphasis, methods of instruction, functioning of the learning center, teacher activities, and the evaluation process.

The main influences on instruction come from the recruitment, staffing, and goal-setting areas. These determine student characteristics, teachers, materials and facilities, and goals. The principal outcomes of instruction are student achievement, persistence in further education, and personal and occupational development.

This section on the instructional area is organized into three major subdivisions: (1) direct instructional activities, (2) assessment procedures, and (3) student evaluation input. However, where bits of data from the different divisions relate, they are presented together.

Instructional Activities

In an attempt to determine the desirable instructional emphasis in ABE programs, supervisors were asked to state the relative weight that particular subjects should receive. Most supervisors felt that reading, language skills and arithmetic should be emphasized strongly, and some added personal adjustment and basic social skills to this category. Coping skills, health education, and consumer education were perceived as somewhat important, while racial and ethnic heritage was considered of lower priority.

According to teachers, students are primarily organized for instructional purposes by classes meeting at specified times. However, the data suggest that this is frequently supplemented by individualized instruction involving the teacher directly or utilizing programmed materials. Teachers indicated that approximately 30% of their time is spent teaching the class as a whole, 20% teaching students in groups, and 50% teaching students individually.

As Figure 17 indicates, students, when asked to evaluate various learning methods, tended to regard working alone with a teacher or teacher's aide as most useful.

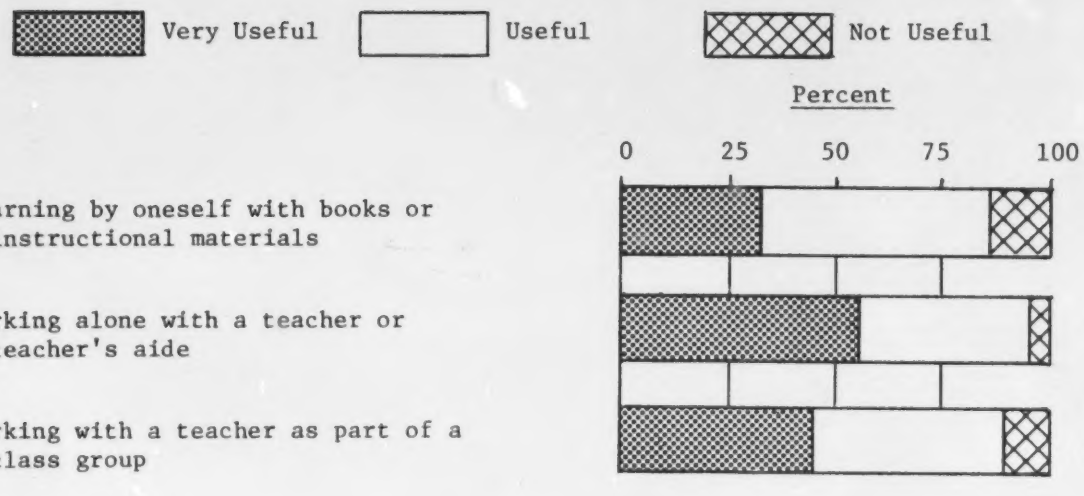


Figure 17. Students' Evaluation of Learning Methods

Concerning the materials that are used, teachers stated that approximately 65% are commercially published and 35% prepared or adapted locally. In some ABE programs there is a separate instructional facility utilizing programmed materials or instructional equipment designed to enable students to work individually at their own pace. It can be seen in Figure 18 that 60% of the teachers indicated some use of this sort of facility.

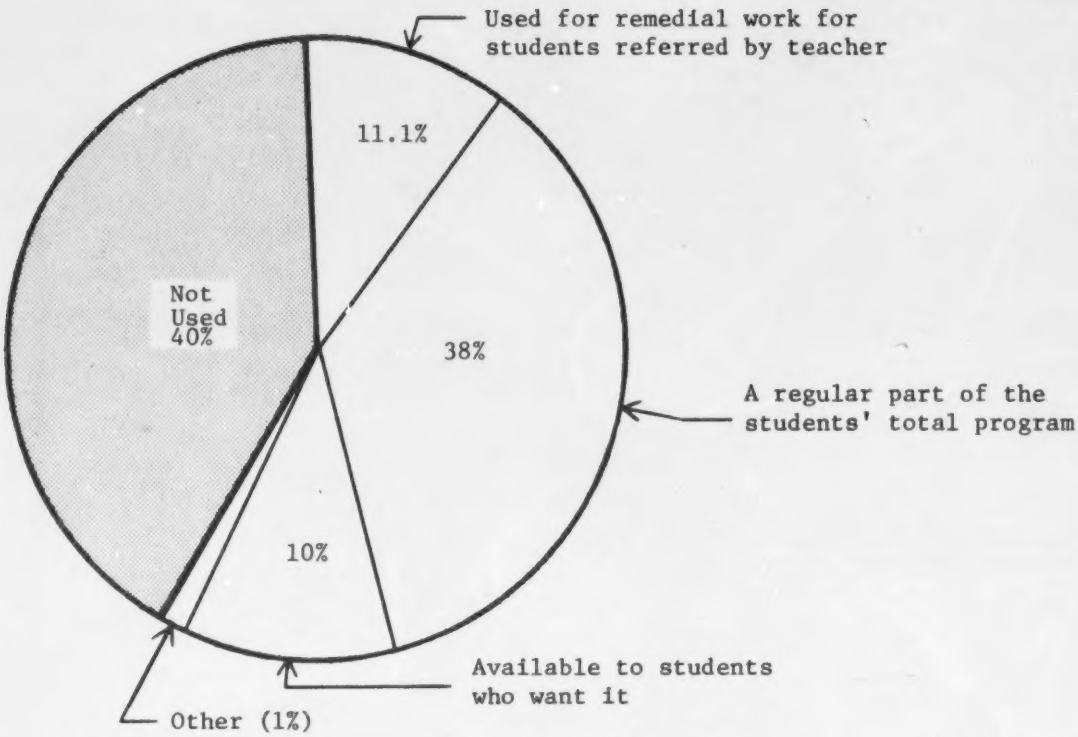


Figure 18. Teachers' Estimate of the Use Made of Programmed Materials

According to supervisors, instruction can be improved by:

making it more individualized, and having smaller classes;

providing for more input from students;

providing for more contact between student and supervisor;

improving in-service activities, including recognition of differences in types of settings (e.g. correctional, hospital), and use of outside consultants, such as psychologists and human behavior specialists;

the development of a state-wide curriculum;

use of APL functional competency goals and techniques; and

a newsletter, twice each school year, from state offices to area supervisors, detailing successful procedures and new ideas.

Results from the teacher survey indicate that aides and volunteers are used primarily for instructional purposes (mainly to tutor individual students), but that aides occasionally have clerical duties. Few of the programs sampled reported that they have volunteers, a fact substantiated by the 1975-76 administrative survey (Sproat et al, 1976).

Assessment Procedures

The major instructional problem identified by workshop participants is assessing student expectations and capabilities and matching these with appropriate methods and curriculum. They recommended that a systematized approach be developed, characterized by: (1) a staff-student consultation mechanism to aid in the design of curriculum; (2) smaller, more homogenous classes for students with similar needs and goals; and (3) more individualized instruction.

Teachers in 45% of the programs indicated that they now perform the initial assessment of students. In 30% of the cases, counselors carry out this function, while about 15% of the time a combination of counselor and teacher does so. Supervisors indicated that counselors in 50% of the programs are responsible for orienting new students to the program.

The survey data suggest that standardized tests and interviews are the primary method of initial assessment. The measurement of achievement also involves standardized tests, as well as locally developed tests and/or interviews. Last year's statewide ABE survey indicated that a great variety of tests were used to assess student entry level and to measure achievement. Counselors were asked in the present study to list the most common test forms that they had used during the last several years. Eighteen tests were mentioned by two or more counselors, and there were, in addition, 21 tests mentioned only once. An amazing variety of personality and individual and group intelligence tests were named. It is suspected that these instruments are used in institutional programs as a part of broader institutional assessment. Nevertheless, the sheer quantity of test forms is surprising.

Teachers indicated that the measurement of achievement occurs at a variety of intervals. Thirty percent indicated that it occurs after 100

instructional hours, while others indicated that it takes place continuously, daily, every 6 hours, 8-10 hours, as needed, at discretion of teacher, etc.

About 55% of the counselors stated that as many as half of the students exhibit anxiety about intake testing, and another 30% of the counselors indicated that all students exhibit anxiety. Nearly all of these felt that the presence of anxiety influences intake testing procedures and overwhelmingly suggested that such testing should be postponed until the procedure could be explained in depth and presented in proper perspective. In addition to anxiety, counselors stated that students' inability to read is a major problem in testing ABE students.

Given the apparent variety of assessment procedures across the state, counselors were asked (1) the desirability of standardized testing procedures throughout the state, and (2) the feasibility of such an endeavor. As Figure 19 indicates, standardized intake testing was regarded as somewhat undesirable by most, while standardized measures of achievement were regarded as more desirable. However, counselors appear to feel it is somewhat infeasible to attempt statewide standardization of achievement measures.

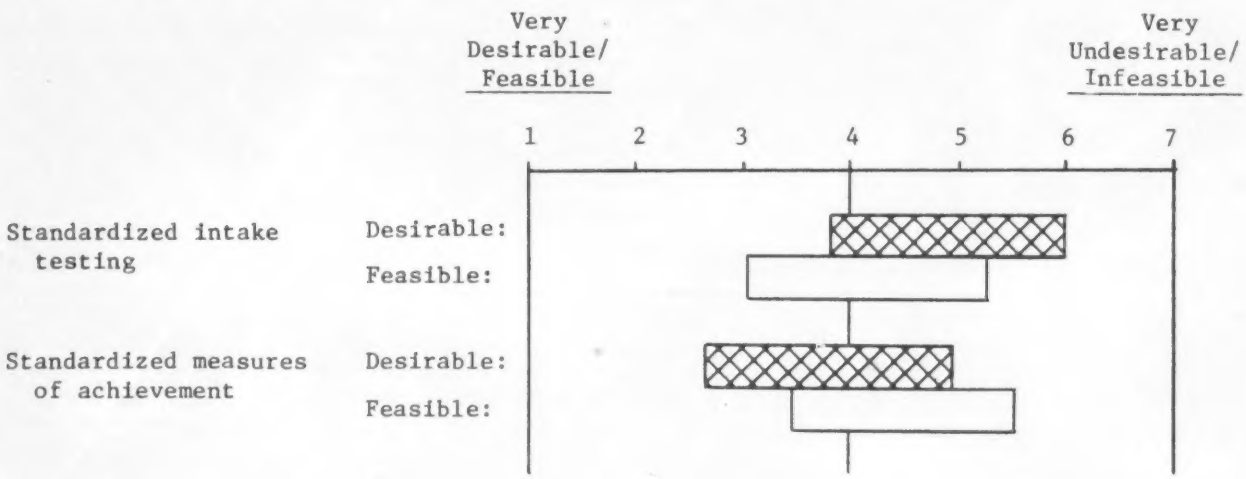


Figure 19. Counselors' Evaluation of Standardized Testing

Workshop participants suggested that standardization might be attempted in a pilot program, with statewide implementation to follow if it seems indicated by the results.

Counselors reported that about 37 percent of the ABE students initiate contact with them for counseling other than for intake purposes. Figure 20 depicts the median rank of various counseling areas as to frequency of student-initiated contacts (1 = most frequent).

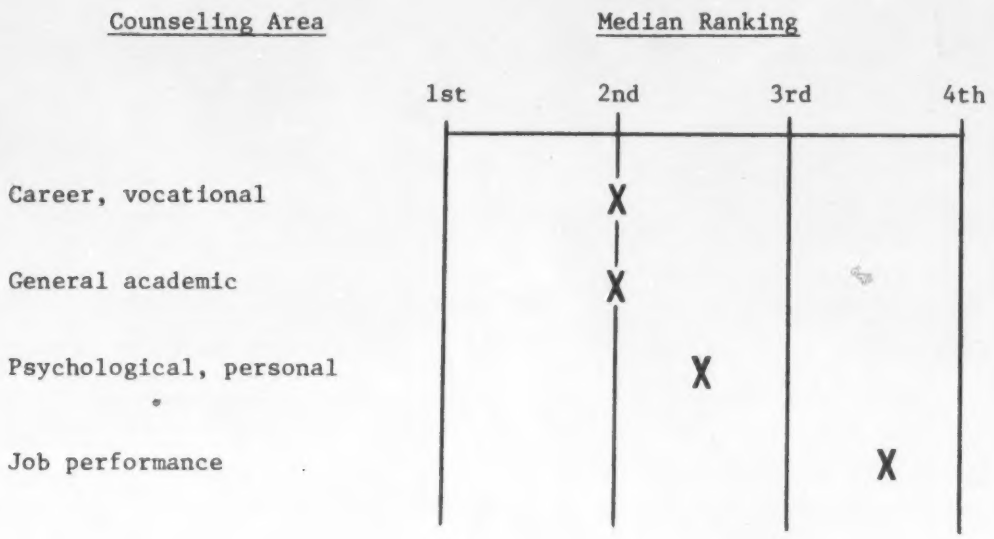


Figure 20. Counselors' Ranking of Types of Student-Initiated Contacts

Student Feedback

Figure 21 depicts the percent of students who checked each of several reasons for attending ABE classes.

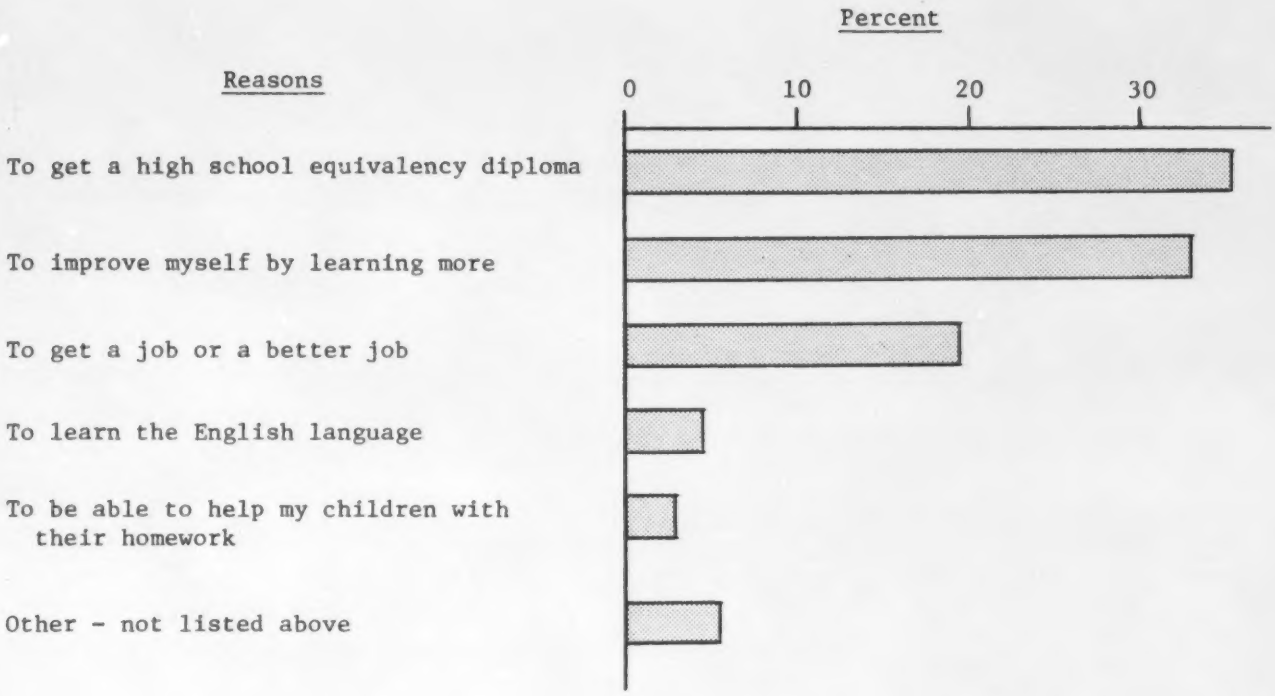


Figure 21. Students' Reasons for Attending ABE Classes

With regard to their most important reason for improving their education, 97% of the students reported that the classes are helping, with 71% indicating that the classes are helping a lot. Ninety-four percent of the students responded that they are treated like adults in their courses and that the ABE classes are relaxed and friendly.

Students were asked to express their opinions concerning learning gains as a result of attending ABE classes. The results are shown in Figure 22.

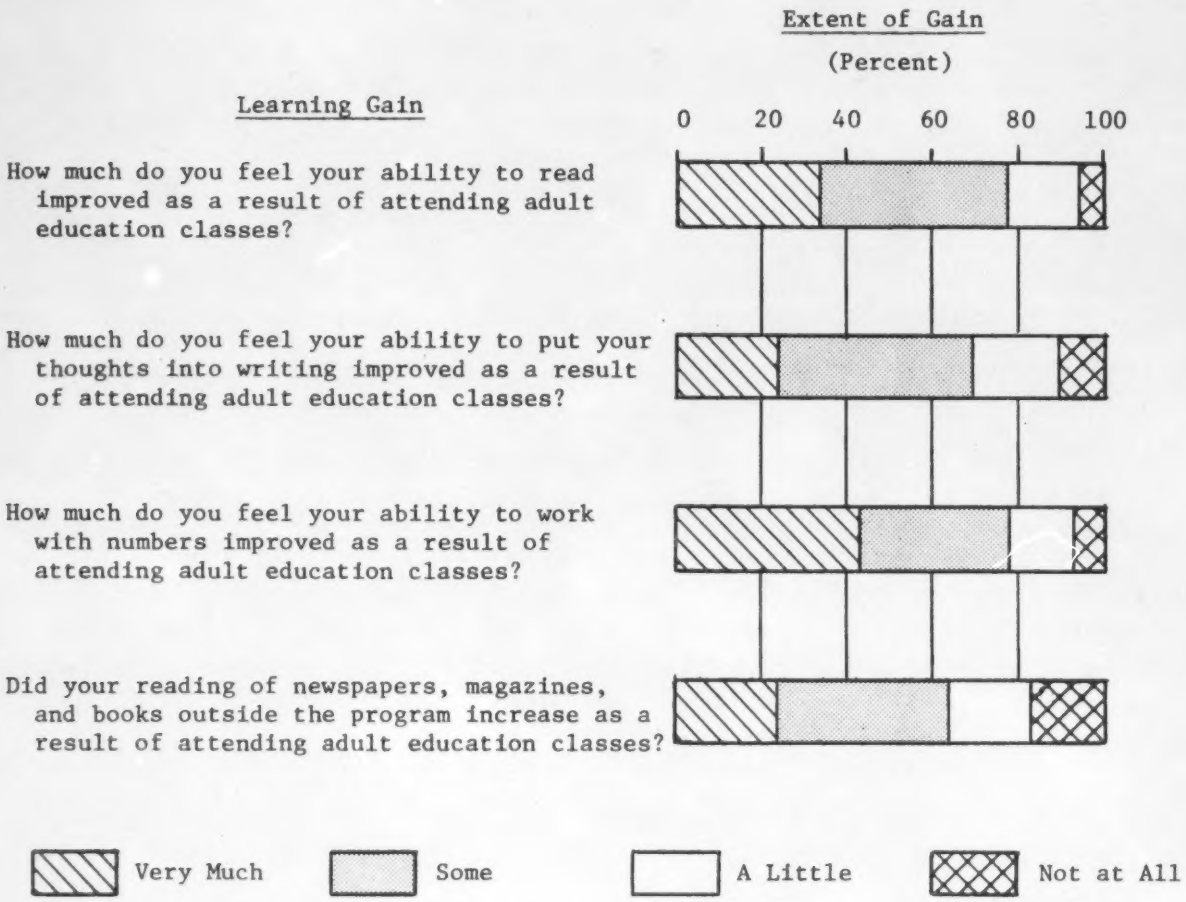

Extent of Gain
(Percent)
Learning Gain
0
20
40
60
80
100
How much do you feel your ability to read improved as a result of attending adult education classes?
How much do you feel your ability to put your thoughts into writing improved as a result of attending adult education classes?
How much do you feel your ability to work with numbers improved as a result of attending adult education classes?
Did your reading of newspapers, magazines, and books outside the program increase as a result of attending adult education classes?
Very Much
Some
A Little
Not at All

Figure 22. Students' Estimates of Learning Gains

That most ABE students are interested in additional education or training is supported by the responses summarized in Figure 23.

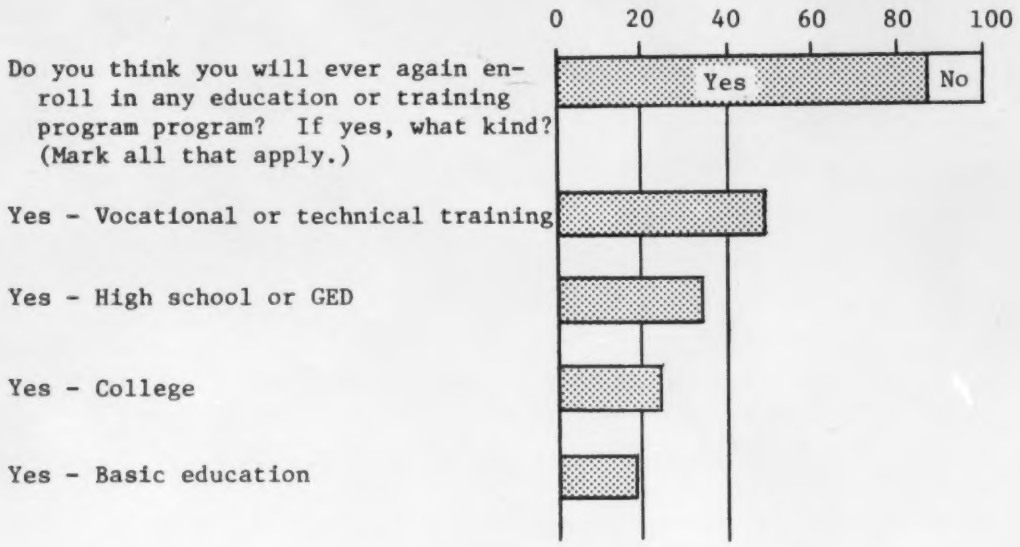


Figure 23. Students' Interest in Additional Education

In summary, a wide variety of instructional and assessment practices may be found among ABE programs. However, the level of student satisfaction with their ABE program experience appears to be high. Both the survey results and the workshop discussion indicate that ABE staff are aware of the need to match assessment and instructional techniques to student capabilities and are making every effort to do so.

PROJECT RECOMMENDATIONS

The primary goal of the 1975-76 Pennsylvania ABE Assessment Project was to provide the basis for changes which will lead to improved program effectiveness. Thus we conclude this report by offering a series of recommendations toward this end for each of the three levels of ABE program administration: federal, state and local. Two points should be made about the recommendations which follow: (1) they are in no way intended to be critical of current or past ABE program policies and practices at any of the three levels, and (2) the funding or resource allocation implications of the recommendations and the timetable for their implementation, both recognized to be very important factors, are not addressed. What we propose can be traced rather directly to one or more sources of project information. Furthermore, in our judgment, the development and publication of recommendations, which are the principal product of this research, should not be unduly influenced by potential constraints such as past policy issues, current funding patterns, and the optimum plan for introducing program changes. Rather, these issues are seen as part of future activities on the part of the respective levels of ABE administration as they choose to accept and implement the recommendations.

PROGRAM GOALS

Many different sources of information received during the project have pointed toward a central issue related to a resolution of the ambiguity surrounding the definition of the target population for the ABE program: (1) the degree to which local programs serve state goals as well as student needs, and (2) the degree to which state programs implement the aims of federal legislation. Currently, Federal Guidelines define the target population primarily by level of education. Some teachers and local program administrators, on the other hand, tend to emphasize student needs in terms of skills that will enable them to cope with their social and economic environments. For their part, students look toward the GED as their primary goal. Furthermore, the state is in the position of having to formulate a

plan which will match the intent of federal legislation with the educational needs of its citizens. Thus, it comes as no surprise that the need for closer correspondence between student and program goals was noted repeatedly in survey narratives, questionnaires, and workshops.

The literature of adult education suggests that level of education is a limiting criterion for defining the educational needs of adults. Grade levels do not differentiate between those adults who have or have not achieved adequate functional skills or who may have lost them since completing their schooling. Further, the APL research has shown that the number of adults who need basic functional level education has been greatly underestimated by studies which rely on the number of years of formal education completed.

Therefore, we make the following recommendations concerning the goals of the ABE program.

1. We urge that the FEDERAL administration revise or provide an alternative definition of the target population in terms of functional competency rather than grade level completion. State and local program definition, eligibility criteria, data collection and reporting requirements would, of necessity, also have to be revised.

2. We recommend that the STATE adopt and encourage competency-based ABE program goals which could be implemented on an optional basis by local ABE programs. Furthermore the STATE should encourage and seek funding for an assessment of the competency levels of its citizens in order to more accurately plan for meeting their needs. Several corollary recommendations are related to the adoption of these broad recommendations:

    a. Students enter current ABE programs for varied reasons, but the typical goal of students at the secondary (9-12) level is to acquire a high school equivalency certificate (GED). Thus, students who complete a competency-based ABE program should be awarded an alternative certification, based on demonstrated competency. Recent evidence from the Texas APL Project indicates these certificates are acceptable to employers and institutions of post-secondary education.

b. Even with a competency-based ABE program, the need would still exist for motivating students who enter the program at lower skill levels to complete the sequence leading to the certification of competency. Therefore it is recommended that the FEDERAL administration encourage the development of and sanction a series of certificates or other form of recognition to be awarded to students as they progress through the various levels in a competency-based ABE program.

c. Program administrators must be encouraged to recruit students from the population in greatest need, at the lowest skill levels. Studies have determined that the cost per FTE student is four to six times as great at the lowest as at the higher levels. Thus we recommend that a formula for funding be devised that would provide a more equitable distribution of ABE funds based on the level of competency of the students enrolled in each program.

d. As recommended in the Federal Guidelines, a statewide ABE Advisory Council should be appointed by the STATE to broaden the base of support for ABE programs. This council should have specific responsibilities in developing the state plan for adult education on the basis of community needs, input from program administrators, and developments in elementary and secondary education across the state.

e. Further research is needed to assess the acceptability and effectiveness of competency-based ABE programs. Therefore we recommend that FEDERAL and STATE levels encourage and fund comparative evaluations of the traditional and the recommended ABE competency-based program.

f. The adoption of competency-based education on the part of local ABE programs has implications for both pre-service and in-service staff training. We recommend that LOCAL program administrators who wish to develop competency-based goals and core curricula for their programs should inform the STATE of their plans so that such staff development can be coordinated and conducted on a regional basis. The recent work of Mocker and Speer (1974) on the identification of teacher competencies should prove useful in this regard.

PROGRAM EFFECTIVENESS

Several other recommendations stem from project data indicating that greater efficiency and effectiveness in program operation can be achieved. The following recommendations are addressed to improving such effectiveness.

1. Administrators at the state and local level have been long plagued by the issuance of guidelines for federal reporting requirements on ABE student characteristics, enrollments, etc. which are both untimely (issued long after programs for a given fiscal year have begun) and unclear. This problem, which casts doubt on the accuracy of ABE program statistics, surfaced many times during the conduct of this project. Therefore, we recommend that the FEDERAL government take serious cognizance of this problem, and revise their guideline development procedures to insure timely and clear reporting requirements.

2. Program administrators have indicated that the state ABE plan can and should be influential in determining their goals and directions. To facilitate implementation of state-wide goals both in the short term and for long-range planning, the state plan should be widely disseminated by the STATE in a manner that will allow for feedback from the administrators in the field.

3. Much of the time of local and state program staff is spent in redundant paper work, particularly with regard to collecting and maintaining data on ABE students. To begin the process of reducing paperwork, we recommend that the STATE support the revising of Form 3081 (student intake) and the combining of it with an individual student data form which would meet federal, state and local program requirements.

4. Administrators report that program operations and, especially, program initiation, are frequently impaired by problems with funding. In addition, much paper work is generated by funding over 250 ABE programs on an individual basis. Therefore, we recommend that the STATE examine the current system of program initiation and funding. Decentralized administration, possibly through regional coordinating offices, may expedite these processes and reduce paper work. Intermediate Units might provide a convenient and experienced basis for decentralization, particularly if funds are made available and full-time administrative staff are involved.

5. Supervisors and teachers of local ABE programs indicate that their operations would be markedly improved by greater coordination and information exchange among ABE programs, and between ABE and other agencies and programs which also serve the ABE target group. They also seek more up-to-date information on curricula and instructional methods. Administrators express a need for on-site guidance and assistance in program development and in-service training.

   a. Thus, it is recommended that the STATE ABE Section of the Department of Education should be authorized to increase its current small professional staff to provide better interprogram coordination as well as improved implementation of the state plan.

   b. In addition, we recommend that support for Project ADVANCE, which has demonstrated effectiveness in information dissemination, should be continued by the STATE. In particular, support should be provided for increasing the scope of the consulation and instructional library services.

CONTINUED ASSESSMENT

Because of its interactive nature, the present study has provided insights into problems and stimulated cooperative efforts on the part of ABE program members, both locally and at the state level, to re-examine the program. The following recommendations are offered as possible areas for a continuing assessment of program organization and directions.

1. LOCAL programs should closely monitor the transition of ABE students from the program to jobs and to other civic and social roles. The APL is a particularly suitable construct for this purpose, and follow-up data on students given this type of competency-based instruction could be compared to non-participating cohorts to provide a data-supported report on the social benefits derived on the part of students and the community.

2. FEDERAL and STATE levels are encouraged to examine the validity and utility of currently used measures of ABE program impact and consider the development and validation of additional impact indicators such as social, civic, and community roles assumed by ABE students. These new indicators may be less time-consuming to collect than the traditional measures and also may provide useful and acceptable outcomes for ABE program accountability and justification.

3. FEDERAL and STATE levels should consider the value of aggregate program performance reports given the diversity, particularly at the national level, in ABE programs. Standardized and clear definitions of both ABE programs and students are needed as well as a recognition of the differential costs associated with programs conducted at different levels and sites. Particularly, standard indicators of program impact in terms of civic and social behavior of students should be developed.

4. Now that a broad assessment of the ABE program has been conducted, it is recommended that the STATE should direct ABE program evaluative efforts toward the identification and in-depth assessment of exemplary programs. These efforts need not be formal program evaluation but rather should be aimed toward collecting and disseminating information on effective program operations and practices to members of the ABE program community.

REFERENCES

American College Testing Program. The adult performance level program. Iowa City, Iowa: The American College Testing Program, n.d.

Bormuth, J. R. Reading literacy: Its definition and assessment. Reading Research Quarterly, 1974, 9 (1), 7-66.

Kent, W. P. A longitudinal evaluation of the adult basic education program. Falls Church: System Development Corporation, 1973.

Knox, A. B. et al. An evaluation guide for adult basic education programs. Washington, D. C.: U. S. Government Printing Office, 1974.

Mezirow, J. Evaluating statewide programs of adult basic education: A design with instrumentation. New York: Columbia University Teachers College Center for Adult Education, 1975.

Mezirow, J. et al. Last gamble on education. Washington, D. C.: Adult Education Association of the U. S. A., 1975.

Mocker, D. W. & Spear, G. E. A study to determine competencies needed by ABE/APL teachers. Kansas City, Mo.: University of Missouri Center for Resource Development: Adult Education, 1976.

Nafziger, D. H. et al. Tests of functional adult literacy: An evaluation of currently available instruments. Portland, Oregon: Northwest Regional Educational Laboratory, 1975.

National Advisory Council on Adult Education. A target population in adult education. Washington, D. C.: National Advisory Council on Adult Education, 1974.

Northcutt, N. The adult performance level study: Summary report. Austin: University of Texas, 1975.

Northcutt, N. et al. Adult functional competency: A summary. Austin: University of Texas, 1975 (a)

Northcutt, N. et al. The adult performance level high school diploma program pilot project. Austin: University of Texas, 1975 (b)

Shoemaker, D. M. Principles and procedures of multiple matrix sampling. Cambridge, Mass.: Ballinger Publishing, 1973.

Southworth, H. T. et al. An administrative survey of fiscal year 1974-75 adult basic education programs in the Commonwealth of Pennsylvania. University Park, Pa.: Planning Studies in Continuing Education, The Pennsylvania State University, 1975.

Sproat, K. J. Administrative survey of fiscal year 1975-76 adult basic education programs in the Commonwealth of Pennsylvania. University Park, Pa.: Planning Studies in Continuing Education, The Pennsylvania State University, 1976.

Statistic of the month. American Education, 1971, 7 (7), 45.